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SUKHDEV SINGH CHIB

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To my friend, Prof. Ramnath Sharma, Kanya Mahavidyalaya,  
Jullundur who hails from the land of Lord Krishha and like  
the Lord Himself took a bold and undaunted step to save an  
Indian woman from *Cheer harna* (being disgraced) in the  
present era of selfishness and self aggrandizement.



## P R E F A C E

Uttar Pradesh is the most important and most populous state of India. Right from antiquity the state has played a significant role in the social, political and economic life of our nation. Besides being one of the earliest homes of the Aryans, Uttar Pradesh was also the birth place of Lord Rama and Lord Krishna, the two important incarnations of Hindu religion. The two most sacred rivers, Ganga and Yamuna, one sacred centre of pilgrimage, Kedarnath, and the ancient city of Varanasi are located in this state. If we make a deeper probe in the ancient as well as modern history of our country we come to the conclusion that the history of Uttar Pradesh is the history of our nation. The *Madhyavarata* of the *Aryavarta* and *Hindostan* of the Muslim and Mughal rulers, Uttar Pradesh has also given to the country its first three Prime Ministers. From every point of view it is desired that the knowledge pertaining to the history, physiography, economy and cultural heritage is imparted to our countrymen. With this view in mind the author feels happy in presenting this seventh volume in the series, 'This beautiful India'.

There is no dearth of literature on this state. Thus the author can not claim any originality. The only special feature of this modest attempt is that it presents to the readers in a nutshell whatever an interested reader needs, amply illustrated with the help of pictures and maps. To students of Geography who need information on the geographic aspects of the state the title may prove of some help. In fact, the author would feel amply rewarded if the title helps some students of geography, the discipline being pursued by the author himself.

I am thankful to the Directorate of Information and Public Relations, Government of Uttar Pradesh, for supplying me the pictures and Statistical Abstract of the State. I am obliged to all the scholars on whose works I have largely drawn to complete this volume. Principal B.L. Kapur continues to inspire me for my academic pursuits and I am grateful to him for motivating me. My thanks are due to Mrs. Maninder Yashpal Singh Bhatia and her entire Library staff for leading me all help for my writings. Though it looks customary to thank one's better half, but in my case, I think it is not formal but appropriate. She has put up patience

and tolerance with me and my writings through thick and thin of life. Mrs. Shashi Kanta Chib, thus deserves a bouquet of thanks not only for shouldering the domestic responsibility when I work in isolation but also for reading the first proofs and preparing the index, the two biggest ordeals in the process of publication. I am also obliged to my niece, Usha, and nephew, Dapinder, for sharing the work of index preparation. Usha also helped me in the collection of matter pertaining to folklore of the state. She did so in a remarkable way and I am highly indebted to her. Last but not the least, I am thankful to my kids, Pankaj Chib and Ritu Chib, for bearing with all the inconveniences caused by my work in isolation. I, however, own all the shortcomings which are there in my attempt.

Sukhdev Singh Chib

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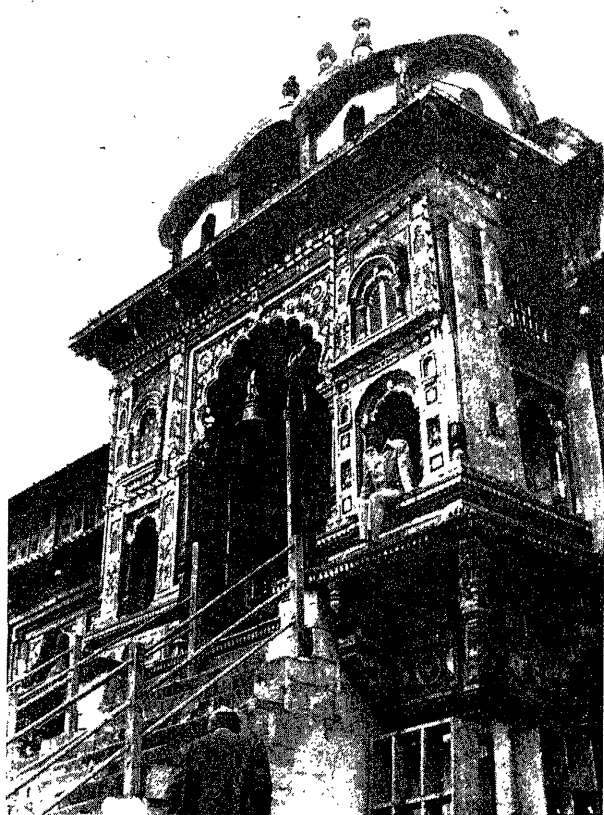
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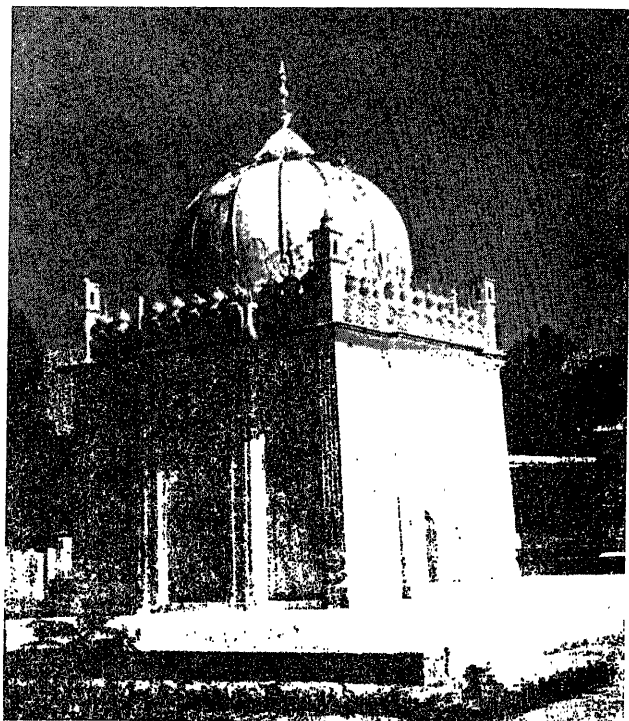
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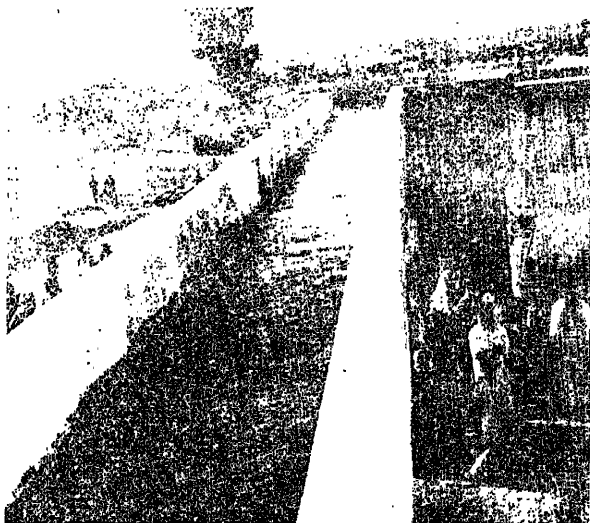
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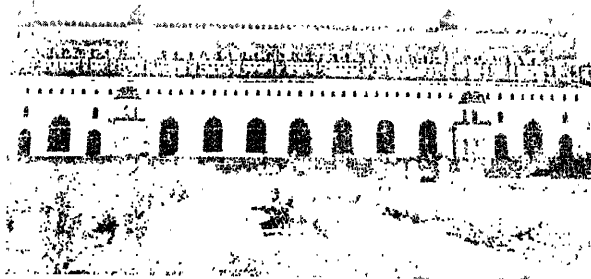
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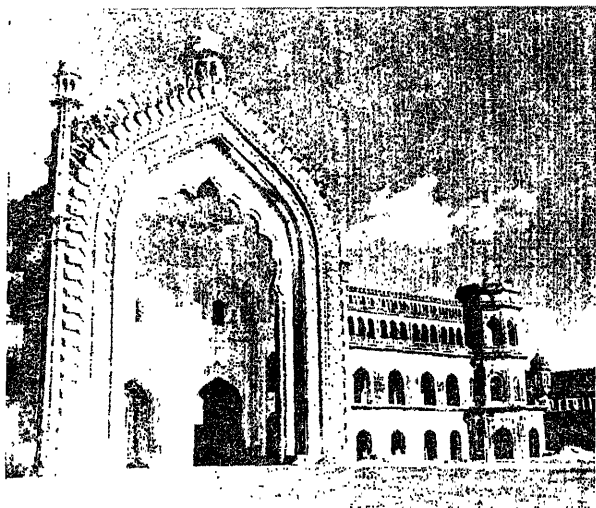
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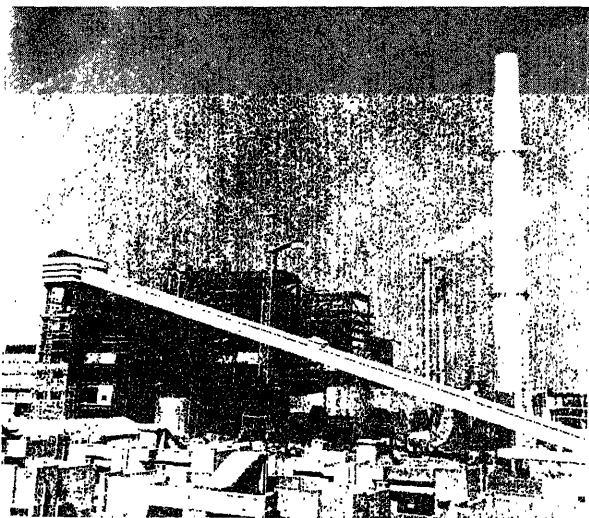
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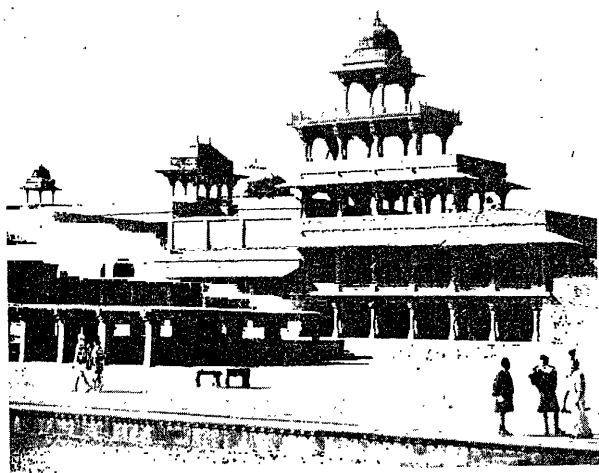
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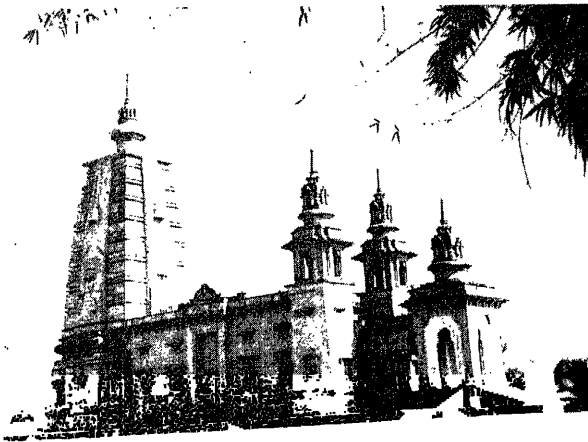
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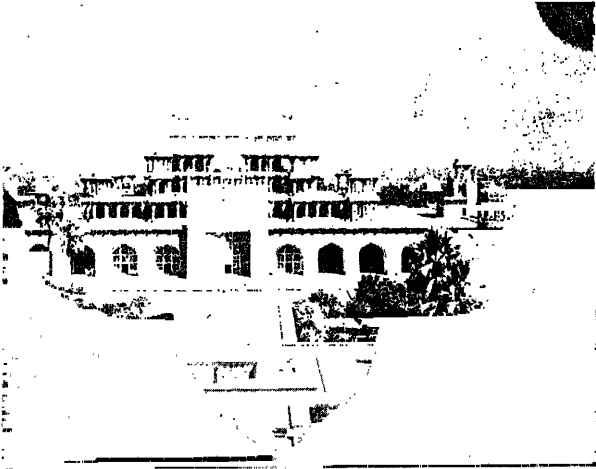
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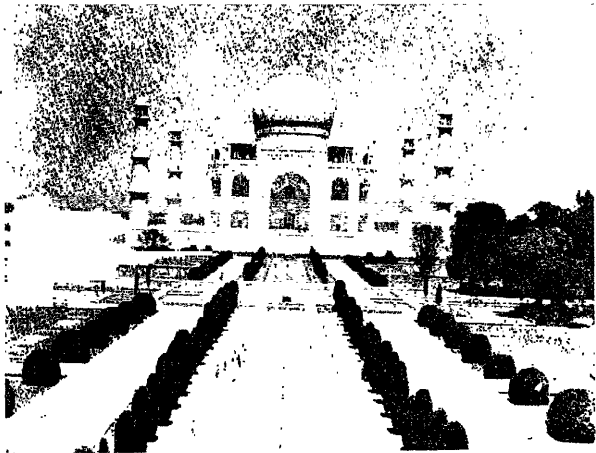
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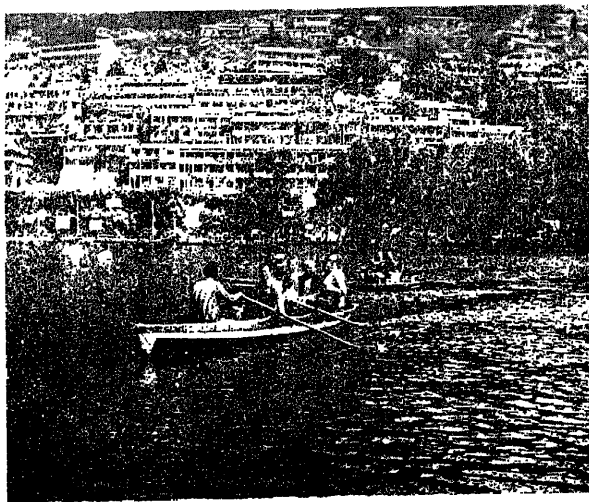
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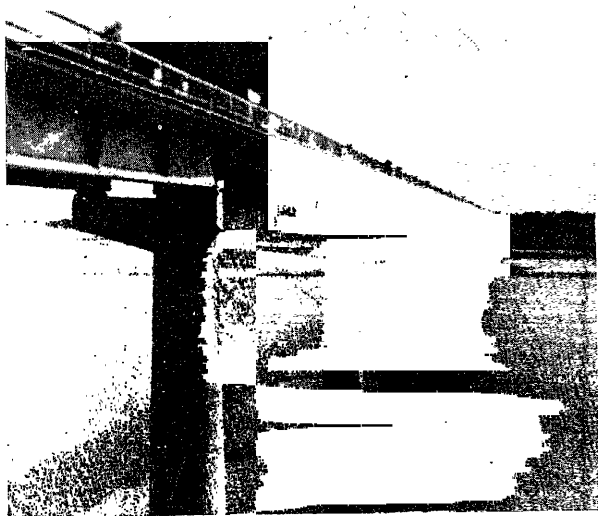
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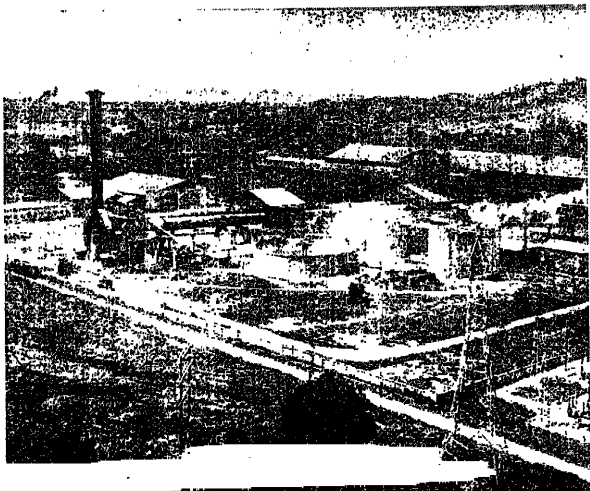
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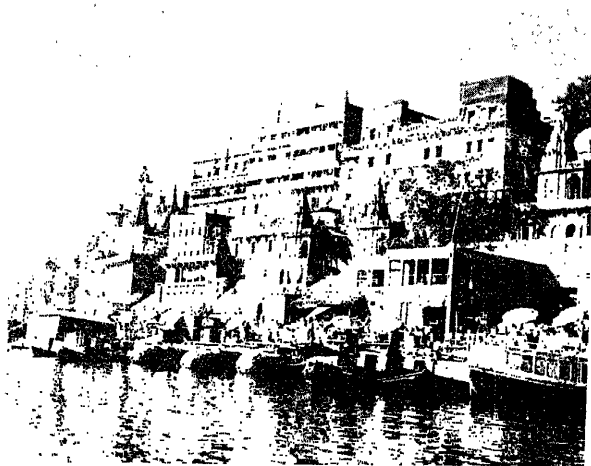
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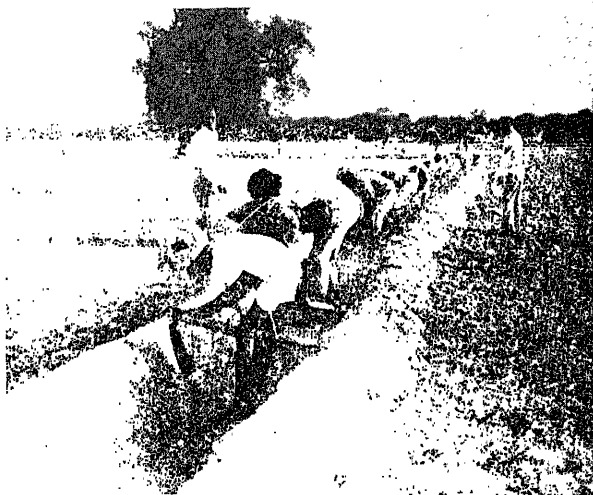
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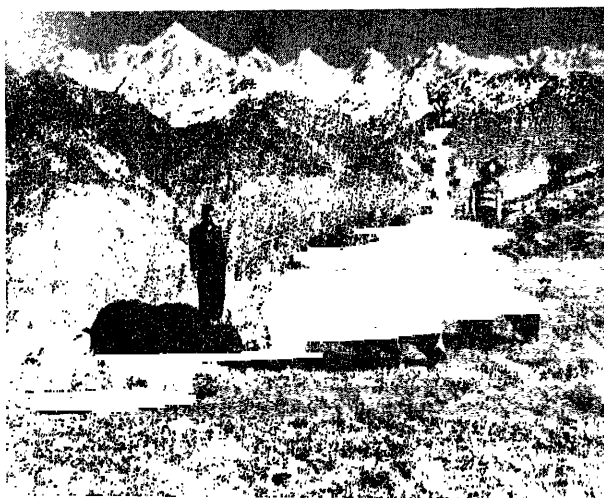
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## *Historical Outline*

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### **Introduction**

Uttar Pradesh is that land where not only history but also many events of the pre-historic period passed through many ups and downs. This land of two sacred rivers—the Ganga and the Yamuna—has been the scene of numerous historical, religious and social evolutions. This land of Rama and Krishna has also been the abode of Adinath and Ajitnath of Jain religion as also the meditation and preaching platform for the Buddhists. In short, the peace and turmoil, ups and downs, religious currents of northern India social upheavals, and political revolutions have been closely associated with Uttar Pradesh.

New mythological findings highlight the fact that at the time of earth's evolution the north pole was located somewhere in northern India. The repeated references to Lord Vishnu's resting postures on the *Seshnag* at Kshirsagar and Lord Brahma's six-month long days and nights in the ancient Indian scriptures indicates such a possibility.

We have been able to gather very little knowledge about the pre-historic and proto-historic periods of this region. Yet, recent

## 2 Uttar Pradesh

archaeological excavations at Mirzapur, Bundelkhand and Sarai Nahar (Pratapgarh) have given out some ancient and stone age implements and tools. Similarly, the finds of Alamgirpur in Meerut district, similar to the Harappan finds, speak of to the antiquity of this tract. "Archaeological research in the past fifteen or twenty years, and recent excavations indicate that perhaps the key to the missing links in the knowledge of the period between the Indus Civilisation and the Vedic Age might lie in this region. It is now beginning to be accepted that the historic city of Varanasi may easily be older than Memphis or Nineveh, Babylon or Mohenjo-daro."<sup>1</sup> Madhyadesha of the early Sanskrit period, Uttar Pradesh is now thought to be the nucleus of the pre-Aryan Indian civilisation. Many archaeologists are busy gathering evidences to establish the fact that the Varanasi-Allahabad-Ayodhya-Kannauj tract was the real centre of the Indus-Valley Culture and that Mohenjo-daro-Harappa was a peripheral region of this tract. The archaeological discoveries point towards the probability of the Ganga valley having been occupied by man in the remote past. This also assures the continuous flow of cultural history from this territory. "Its earliest occupants were perhaps the Negritos, followed by proto-Australoids such as the Dravidians, Nishadas, Bharatas and others, referred to as *Dasas*. Probably they lived in villages and towns and carried rudimentary agriculture in forest clearings."<sup>2</sup>

The present Uttar Pradesh formed a part of Madhyadesha or the Middle country (pivot of the Aryavarta, i.e., Land of the Aryans) which extended to Patliputra, i.e., Patna, during Puranic, Ramayana and Mahabharata periods. Because of its heartland position and Hindu dominance the land was called as Hindostan by the early Muslim historians. This fertile tract of land lying between Delhi and Patna, securely and typically Indian, was a coveted part for those invaders who wanted to rule India. "Every power with an ambition to rule India gravitated to grab it for only the securely held Madhyadesha could lead to Indian rulership, and hence all the invasions thrust into this part."<sup>3</sup>

### Hilly Areas

At Present, the state of Uttar Pradesh besides covering much of the

1 Singh, S.K; *Uttar Pradesh*, in *The Illustrated Weekly of India* (Annual 1973), p. 14.

2 Singh, U. and Verma, R. V; *Upper Ganga, Plain in India : A Regional Study* (Ed. R.L. Singh), 1971, p. 126.

3 *Ibid*.

Gangetic plain also covers a hilly tract mostly at its north-western end. The history of hilly areas has always been different from that of the plains. Very few foreign invaders succeeded in penetrating the hill tracts whereas these hills worked as shelters for those people who, after being routed from the plains, sought refuge in these remote hills primarily to reinforce themselves with the purpose to regain their supremacy over their lost empire. But many times it happened that these incoming petty rulers and chieftains created or niched their principalities in these hills. The mountainous parts of Uttar Pradesh were no exception to this general rule.

The mountainous Uttar Pradesh, popularly known as the Kumaon hill tract, obtains its name from Kurmachal, i.e., the mountain (*achal*) of tortoise (*kurma*). Skanda Purana refers to Lord Vishnu's tortoise incarnation at Champawat in Kali valley. The region is also referred to as Uttar Khand or Kedar Khand in the Puranic Literature. It is also gathered that the great sage Ved Vyas composed his *Up-Purana* in Uttar Khand. "It is because of this that the region is regarded as one of the holiest parts of Bharat, being frequented by great saints and kings from different parts of the country. Every rock and rivulet is dedicated to some deity or saint and has an appropriate legend attached to it."<sup>4</sup>

The ancient kingdoms of Dwigarta, Trigarta and Madra flourished in these hills whereas the kingdoms of Brahmapura and Shrugna also had their control over these hills. According to the Chinese traveller, Hiuen Tsang, the Bhabar, and Tarai tracts were also under the influence of Govisana and Madawar kingdoms. The rock edict at Kalsi dating back to Ashoka's time also testifies to the fact that the Kedar Khand area also remained under the suzerainty of the Mauryan rulers. In Medieval times the Muslim onslaughts and atrocities drove away many of the Rajput Chieftains of the plains who, in their turn, created some principalities in these hills. Ajmer Patti and Udaipur Patti have probably derived their names from the chieftains migrating to Uttar Khand from Ajmer and Udaipur. The Katyuri dynasty had its stronghold over the Kumaon tract till the beginning of the fifteenth century A.D. Thereafter, the Kumaon kingdom got scattered into many small principalities which built their different fortresses (*Garhs*) for their self defence. During the sixteenth century King Ajaipal integrated and brought fiftytwo fortresses under a common banner and thus the area came to be known as 'abode of fortresses' i.e., *Garhwal*.

4 Kharakwal, S.C; *U.P. Himalaya in India : A Regional Study* (Ed. R.L. Singh), 1971, p. 444.

After the disintegration of the Mughal empire at Delhi Uttar Khand also became a target for Rohilla and Gurkha invasions. By early nineteenth century Gurkhas became a formidable force in the hills of northern India. But their overambitious designs brought them in direct conflict with the British, who had by that time become the supreme force in India. Thus the Gurkhas of Nepal lost Garhwal and Kumaon to the alien rulers. However, the ruler of Tehri was allowed to retain his hold over the Tehri Garhwal area as a reward for his loyalty to the British. The British occupation of this area indirectly brought development in the fields of road building, agriculture, commerce and education. Lured by the new look this area was bearing consequent upon this development, the Khampas and Bhots from the neighbouring land of Tibet also started migrating to Uttar Khand. Subsequent to the attainment of Independence in 1947 these areas gradually got merged into the most populous state of India, i.e., Uttar Pradesh.

#### **Lowland Areas**

As already narrated the plain tracts of Uttar Pradesh have always figured prominently in the history of northern India. The historical and archaeological finds support the view that the Ganga valley had been occupied by human settlements right from the pre-historic times. "Fifteen thousand years ago, man in this region was in the palaeolithic age, with a nomadic way of life. Civilization, based on rudimentary agriculture and crude metal working, dates back to about 10,000 years."<sup>5</sup> Since time immemorial many ethnic groups have been intermingling in Uttar Pradesh and Bihar. This tract became a meeting place of two great pre-historic ethnic groups, i.e., Mundas and Mediterranean Armenoid peoples. "This fusion of two different races with different culture traits brought about a remarkable material and cultural upheaval."<sup>6</sup> The advance of roving Aryans brought about many far reaching results in the culture and economy of this region. This forest clad region of India was cleared by the 'fire cult' brought by the Aryans and made fit for human habitation of swarming immigrants. "In the wake of Aryan colonization and cultural assimilation, the region seems to have developed a more advanced agricultural society, based mostly on the indigenous labour and technique and the superimposed political and social leadership. Though social strati-

5 Mukheriji, R.K; *The Changing Face of Bengal* (Calcutta, 1938), pp. 233-34.

6 Singh, R.L, 'Evolution of Settlements in the Middle Ganga Valley' (N.G.J.I., 1) 2, 1955.

fication and hierarchy had already begun in the growing society, it had not hardened till then.”<sup>7</sup>

The Aryans first of all settled in Sapta Sindhu, the land of seven rivers, bounded by the Indus on the west and Saraswati in the east. The Vedic hymns which were composed nearly four thousand years ago reveal that the Aryans had not penetrated their settlements east of Yamuna by that time and their effective eastward movement started later. “The expansion of the Aryans eastward was essentially through conquest as much as with conciliation as their own stocks were limited; they could not help Aryanising and absorbing the indigenous people as their strains become thinner and thinner with every advance further.”<sup>8</sup> Having established their settlements in the east these Aryans started resisting fresh Aryan penetrations with the help of indigenous people whom they had by then assimilated amongst them. This miscegenation, however, led to the emergence of neo-Aryanism or Hinduism. The *Kasis*, the *Koshals*, the *Kurus*, the *Panchalas*, the *Vatsas* and the *Videhas* were the other contemporary people who find mention in later vedic literature. These people had by this time settled in the Ganga valley having given up their nomadic way of life. “Literary and other evidences suggest that the Aryans had crossed the Ghaghra (Saryu) before the first millennium B.C. The Madhyadesha had by then become the pivot of the Aryavarta which extended to the two seas. As mentioned in the *Mahabharata*, other parts were known as eastern, southern, western and northern, surrounding the Madhyadesha which was, according to the *Vishnu Purana*, occupied by the *Kurus* and *Panchalas*.”<sup>9</sup> The region now occupied by the Upper Ganga valley became the nucleus wherefrom the Aryans commenced their expansion in the east, north and south. Besides the composition of epics, the *Brahmans* and *Puranas* were also contemplated in this tract. Gradually, the expansive colonies grew into Janpadas, i.e., small republics. This led to the declining influence of Sapta Sindhu and the land lying between the Saraswati and Ganga assumed the importance of a nucleus. *Kuru*, *Panchal*, *Kashi*, or *Koshal* (Awadh) became the leading republics on the tract. Some of the rulers of these republics, and especially *Pravahana Jaivali*, became immortal on account of their welfare activities.

The later history of this part got mixed up with the mythological

7 Singh, R.L. and Singh K.N; ‘Middle Ganga Plain’ in *India: A Regional Study* (Ed : R.L. Singh), 1971, p. 185.

8 Panikkar, K.M; *Geographical Factors in Indian History*, Bombay, 1959, p. 99.

9 Singh, U. and Verma, R.V; *op. cit.*, p. 127.

literature and we find the thread between history and chronicle broken. In the sixth century A.D. the clouds of myth and mystery wean away and the outlines of history start emerging. It is observed that at that time rivalries persisted amongst the sixteen Janpadas located on the Aryavarta. Of these sixteen Janpadas eight were located between the boundaries of the present Uttar Pradesh. These eight Janpadas were :

- (a) Kuru (Meerut, Delhi and Thaneswar with Capital at Indraprastha—Indrapal near Delhi).
- (b) Panchal (Bareilly, Badayun and Farrukhabad). The Ganga divided this republic into two divisions, Northern Panchala and Southern Panchala. The former division had its capital at Ahichhatra (Ramnagar in Bareilly) whereas the latter division had its capital at Kampilya (Kampil near Farrukhabad on the Ganga).
- (c) Shursen (the tract surrounding Mathura) with its capital at Mathura. It was earlier the area of Lord Krishna's achievements and, therefore, it was equally honoured by Kurus and Panchalas for many many years to come.
- (d) Vatsa (Allahabad and its nearby tract) with its capital at Kaushambi (Kosam near Allahabad)
- (e) Koshal or Awadh (Ayodhya-Faizabad tract) with its capitals at Saket (Ayodhya) and Shravastri (Sahet-Mahet in Gonda district).
- (f) Mall (Deoria district) with its capitals at Kushinagar (Kasiya) and Pawa (probably present Padrauna).
- (g) Kashi (Varanasi) with its capital at Varanasi.
- (h) Chedi (Bundelkhand) with its capital at Shuktimati (probably near Banda).

Besides these Janpadas, some Democratic Republics like Shakya kingdom of Kapilvastu, Samsumergiri's *Bhatga* and Kushinagar's Mall kingdom gave rise to trade routes from other parts of Aryavarta. One such route followed the piedmont tract south of the Himalaya and covered the important trading centres of Taxila, Saket, Kapilvastu, Mithila, Vaishali, Patliputra, etc. The other

trade channel started from Jalandhara (Punjab) and reached Tamralipti after crossing Indraprastha, Mathura, Kampilya, Kashi and Rohtasgarh. Most of this route lay south of the Ganga. "This route was the forerunner of the modern G.T. road to which Ashoka gave a proper shape."<sup>10</sup> The Indraprastha-Agra-Ujjaini and Kaushambi-Vidisa routes penetrated into south and west. The former route transported many artistic and sophisticated goods to the port cities on our western coast wherefrom these goods were exported mostly to the Arab world.

All these rival Janpadas quarrelled among themselves on petty pretexts. Koshal captured Kashi while Vatsa was overpowered by Avanti. In turn Koshal and Avanti were overpowered by Magdha one by one. Magdha by this time became a national power and gradually annexed all these areas into its orbit. Magdha was ruled by Haryank, Shishoo Nag and Nand dynasties in succession. Magdha attained new glory and success on the political horizon of India because it threw away the burdensome chains of orthodoxy. On the other hand, "the lands of earlier occupation, such as the Kurupanchala territory, seem by this time to have become priest-ridden, squandering much of the national wealth in expensive sacrifices. This was not the case with Magdha which was an early home of Buddhism and Jainism, which encouraged a somewhat more positive and realistic approach to life than did the sterile sacrificial Brahmanism of the regions further west."<sup>11</sup> The Nand Kingdom of Magdha covered the entire northern India with the exception of the Punjab and Bengal. It was during Nand period that Alexander invaded India. Many historians have brought to light the fact that Alexander's forces refused to move beyond the Beas river not because they felt home-sick but because they dreaded the brave, self-sacrificing and formidable forces of Magdha. Alexander himself was convinced about the inevitable defeat at the hands of strong Magdha forces and only then he decided to retreat. Otherwise, 'the dreamer of world annexation' could not be deterred by extraneous reasons.

With Alexander's retreat from India in 323 B.C. India witnessed great revolution. As a result thereof the Nand rulers surrendered the reins of their kingdom to Chandragupta Maurya. Chandragupta belonged to the Maurya dynasty of Pippalivan. The whole tract now forming Uttar Pradesh enjoyed peace, progress and prosperity under the rule of Chandragupta, his son Bindusara and grandson

10 *Ibid.*, p. 126.

11 Pandey, M.S.; *The Historical Geography and Topography of Bihar*, Varanasi, 1963, p. 14.

Ashoka the Great. All these Mauryan rulers created a highly organised administrative machinery and embarked upon many programmes for the socio-economic uplift of their subjects. The Lion's form got engraved by Ashoka at the top of a pillar at Sarnath has been accepted by the Government of India as its National Insignia. Ashokan edicts have also been found at Sarnath, Allahabad, Meerut, Kaushambi, Sankissa, Kalsi, Barti and Mirzapur. The Chinese travellers Fe Hein and Hiuen Tsang speak about many other edicts. The 'Dharmrajika Stupa' was also got installed by King Ashoka at Sarnath.

Immediately after Ashoka's death in 232 B.C. the Magdha empire started exhibiting signs of disintegration. His grandsons, Dashratha and Samprati, divided the kingdom between themselves. The territory lying south of Narmada became independent and other rulers started occupying different parts of the Punjab. The last ruler of the Mauryan dynasty was Brhadrath who was got murdered by his minister, Pushyamitra Shangu, in 185 B.C. Pushyamitra thereafter tried to consolidate the Magdha empire. Patanjali refers to another Greek invasion in his *Mahabhashya*. Menander and his brother invaded India about 182 B.C. It was a massive invasion and they captured Kathiawar, Sagal (Sialkot in Pakistani Punjab) and Mathura. Subsequently the invaders laid siege over Saket (Ayodhya) and penetrated deep into the Ganga valley. Vasumitra the grandson of Pushyamitra offered a tough and heroic resistance to Greek invaders at the banks of the Ganga. Finding it impossible to succeed in their aim the Greeks tactfully retreated their steps and concentrated themselves on the Punjab with their capital at Sagal, i.e., Sialkot, Mathura continued to be an important town of Menander's empire for about four decades. Menander's rule came to its end in 145 B.C. Thereafter many Greek and Indo-Greek principalities continued in the Punjab for some time. Meanwhile, the Shung dynasty was replaced by Kanva dynasty in Magdha. It is gathered that the last King of Shung dynasty, Devabhuti, was a debauch and a womaniser. He was consequently done away with by his minister, Vasudeva. Vasudeva laid the foundations of Kanva dynasty which ruled over Magdha for four and a half decades. Simuhak, the founder of Andhra dynasty, or, Satavahans, brought an end to the Kanva dynasty of Magdha.

This was the time when the attention of Central Asiatic Shaks was first attracted to India. The Shaks had established their sway over Mathura by the year 60 B.C. The first Shak ruler in this tract was Mayus who died in the year 58 B.C. After the Shaks the Parthians started invading northern India and by the beginning of First Century A.D. they had started routing and subjugating the Shaks.

Nearly forty years before the birth of Christ Kushans had also initiated their annexations in north-western India. Kushans were also one of the five Central Asiatic horde clans. Very soon the Kushans established their stronghold in the entire area between Central Asia and the Indus. Therefrom, slowly and gradually, they started spreading all over the northern India. The Kushan dynasty in India was founded by Kuzul Kadphises, or, Kadphises I. His successor and son, Vim Kadphises, or, Kadphises II, sneaked right upto the Ganga valley. His successor was no less than a person of the stature and calibre of Kanishka I who has left an indelible mark on the face of Indian history. The Chinese and Tibetan historians and chroniclers have preserved many stories of clashes with Kanishka, the king of Soked (Saket). Similarly, many of the rock edicts and coins found during excavations in many parts of the present Uttar Pradesh leave no doubt about the fact that at one time this land was a part of the mighty Kushan empire. Mathura was then a leading centre of art and craft. Though there is a difference of opinion among the historians with regard to Kanishka's period, yet, it is clear that he had two capitals in India; one, at Purushpur (Peshawar) and other at Mathura. His kingdom included Gandhar, Kashmir, Sindh and the Ganga valley. Kanishka was succeeded by his son, Huvishka, who, in turn, was succeeded by his son, Vasudeva.

During the days of Vasudeva the Kushan Kingdom faced both contraction and disintegration. There grew many frontier principalities. Their internal strifes and skirmishes brought an end to the influence of Kushan empire over Madhyadesha by the advent of third century A.D. This vast and mighty empire was replaced by many principalities and chieftainships: the names of many such petty rulers and chiefs are known from the Allahabad rock pillar got erected by Samudragupta. Yet it is gathered that the mightiest ruling dynasty among these was the Nag dynasty. Mathura and Kantipuri (Kantit in Mirzapur) were the capitals of this ruling house. *Bhar Shiva* was the leading ruling clan of the Nag dynasty at that time. It is said that the Bharshivas celebrated ten Ashvmegh Yagyas and they were enthroned with sacred water of the Ganga.

Till the middle of second century A.D., when Guptas rose to power, the history of this tract remained shrouded in the clouds of uncertainty. "The Kushan power was gradually weaning and giving way to many scattered principalities. But being open to trade with the east and west coast ports, the region was under expensive economic stage."<sup>12</sup> The Achichhatras of Panchal had a strong kingdom

which extended upto Mathura. The Kuninda kingdom, at that time, covered the tracts of Kumaon, Garhwal and possibly extended upto the hilly tract of Simla and Kullut (Kulu). The historic remains obtained at Kashipur and other places of the *Tarai* tract reveal that it was a strong and mighty kingdom. After the Kushan power weaned out Kaushambi emerged to be an independent kingdom. Magdha was also then ruled by a ruler from Kaushambi house and therefrom started the Gupta dynasty. In the fourth century A.D. the rise of Guptas to power brought about a political unity in India. During two centuries' rule of Guptas the Madhyadesha remained a prosperous and progressive part of India. Though Huns tried to rock this area with their horde like activities yet Skandagupta rose to the occasion and drove away the Huns from the scene. In the weakening period of Guptas this tract again became a hot-bed of intrigues and conspiracies which led to formation of a cockpit among the Mukhauris of Kannauj, Huns and Guptas. In this chaos and confusion the Mukhauris rose to power and brought Madhyadesha under their hold. They had to face a strong opposition from the Guptas of Malwa. Their last ruler Grihvarman was defeated by the Malwa Gupta ruler Devgupta in A.D. 606 and was consequently slain. Subsequently the reins of rule were handed over to Harsha Vardhana the brother-in-law of the slain ruler. Harsha was then the ruler of Sthaneshwar (Thanesar). With Harsha's obtaining power in Madhyadesha the Thanesar and Kannauj houses established closer ties and affinity among themselves. Kannauj became a leading town and attained the pinnacle of glory and grandeur. For many centuries Kannauj enjoyed the same status and reputation as was earlier enjoyed by Patliputra. On account of its affluence and magnificence the city was known as '*Mohodya Shri*' and after Harsha's death Kannauj remained the most coveted town for all the Hindu rulers. Hiuen Tsang who visited India during Harsha's period has paid rich tributes to the glory and grandeur of Kannauj.

Harsha's death was followed by utter political chaos and confusion in this region. The available material does not weave a continuous yarn of the fibre of history but it does throw a beam of light on scattered events. In the first quarter of the eighth century A.D. Yashovarman established his hold over Kannauj. He annexed almost the entire northern India and once again made Kannauj a city of magnificence, affluence and grandeur. With the help of Lalitaditya Muktipid, the then ruler of Kashmir he sent his forces to Tibet also and achieved success in his mission. But at a later stage, about A.D. 740, he was dethroned and got killed by Lalitaditya Muktipid. This caused a bitter fight and rivalry amongst the Pals

of Bengal, *Rashtrakutas* of the south and *Gurjar Pratiharas* of western India with regard the capture of Kannauj. Ultimately, the *Gurjar Pratiharas* achieved success on this front. The empire built by these people was in no way smaller in size than the ones earlier built by the *Guptas* and *Harsh Vardhana*. The *Gurjar Pratiharas* had their day and full sway over northern India during the ninth and tenth centuries. They were defeated by *Mahmud Ghazanavi* in A.D. 1018-19. The *Chandel* rulers of *Jejakhukti* (present *Bundelkhand*) successfully repulsed *Ghazanavi*'s attacks. Their *Kalinjar* fort remained unsubdued. The heroic deeds of two *Chandel* rulers, *Dhang* and *Vidyadhar* in these battles have been immortalised in the folklore of *Bundelkhand*.

The fall of *Pratiharas* led to disorder and anarchy in this area. This type of situation offered an opportunity to the evil designs of foreigners. "The repeated onslaught of the Huns, and later the Muslims, gave rise to the need of unity which was forged quite successfully but only occasionally and once the foreign invasion subsided, internecine warfare became the order of the day."<sup>13</sup> For some time the emergence of *Gaharvar* dynasty on the scene brought order and peace in the region. This temporary and short-lived political lull was not without economic prosperity. Two of the noteworthy *Gaharvar* rulers were *Govind Chand* (A.D. 1104-1154) and *Jai Chand* (A.D. 1170-1193). Because of *Jai Chand*'s short-sightedness and his enmity and hatred towards *Prithvi Raj Chauhan* the latter lost to *Muhammad Ghauri* in the second battle of *Tarain* in 1192. But the foreign invaders had their own axe to grind. They did not spare their host and helper at a later stage in order to grab the entire territory. As *Babur* behaved with *Rana Sanga* about three and a half centuries later, *Muhammad Ghauri* also did not spare *Jai Chand* who had earlier helped the former in defeating and capturing his old rival, *Prithvi Raj Chauhan*. *Jai Chand* was defeated and killed by *Muhammad Ghauri* at *Chhindwara* (*Etawah*) in A.D. 1193. Thereafter, *Meerut*, *Koel* (*Aligarh*), *Asani*, *Kannauj* and *Varanasi* fell prey one by one to the onslaught of invaders. *Paramadirddev* of *Jejakhukti*, i.e., *Bundelkhand* (*Parmal* the hero of *Bundelkhandi* ballads and folktales) lost to *Qutab-ud-din-Aibek* in A.D. 1203 and was killed in the battle. *Chandelas* on the other hand became alert and kept themselves secure against Muslim invasions for about another two centuries, but they had a limited domain only. Similarly, the hilly tract located in the far north also escaped the Muslim onslaughts. In the rest of the part which was time and again laid waste by foreign invaders attempts were made to

13 *Ibid.*, p. 128.

forge unity amongst not only the rulers but masses too. The meeting of the Sarva Khap Panchayat (a traditional multi-caste structure) was held in A.D. 1201 to devise ways and means for self-defence. The deliberations urged upon the raising of a huge army consisting of personnel from different castes and forging a unity. "But the unity was almost always for defence and resistance against some taxes like *Jezia*, or, onslaught on religion and social affairs or for making suggestion for agricultural and economic development."<sup>14</sup>

In the year A.D. 1206 Qutab-ud-din-Aibek sat on the throne of Delhi and laid the foundations of the Slave Dynasty as well as Delhi Sultanate. The Slave, Tughlaq, and, subsequently, Khilji Sultans extended the frontiers of the Delhi Sultanate. The present area of Uttar Pradesh remained part of the Sultanate almost from the very beginning. Though Sambhal, Kara and Badayun were gifted to the *Jagirdars*, yet, the entire tract continued to oppose the Sultans. Katehar, Kampila, Bhojpur and Patiali always resisted tooth and nail the rule of the Sultans. But the writings on the forehead of our country were altogether different.

The history of Madhyadesha during the thirteenth and fourteenth centuries is replete with inhuman atrocities and repression committed on the masses and latter's bravery, fortitude and resistance. But, unfortunately, all such instances have not been quoted by all the historians probably at the instance of the then rulers. Still some scattered events have been narrated by local historians and folklore composers. By the end of this period the Tughlaq rule was fast approaching disintegration and in A.D. 1394 an independent kingdom emerged in the eastern part of this tract. This was the Sharqi Empire and was founded by rebel Subedar Malik Sarwar Khwaja Jahan at Jaunpur. Khwaja Jahan was the strongest opponent of Nasir-ud-Din Tughlaq. The Sharqi rulers vehemently opposed the Delhi Sultanate for 84 years and did not recognise the suzerainty of Delhi on Kannauj and its vicinity. Within half a decade of separation of Jaunpur from the Delhi Sultanate India came under a massive and barbaric attack of a Chaghtai Turk, Timur Lang (Tamerlane) of Samarqand in A.D. 1398. No doubt the area that received the severest blow at the hands of this barbaric horde was Delhi and its surroundings yet some parts of the Yamuna-Ganga Doab, particularly Meerut, Haridwar and Katehar also faced loot, plunder and arson. Timur's attack dealt a death blow to the ruling house of Tughlaqs at Delhi. The last Tughlaq ruler Mahmud Tughlaq expired in A.D. 1412 and with his exit from the scene the Tughlaq dynasty faced total extinction from the ruling platform.

Sayyads and Lodhis ruled over the leftover empire of Delhi from A.D. 1414 to 1526. Bahlol Lodhi succeeded in gaining his control over Jaunpur in A.D. 1478 but most of the Doab tract remained under Hindu and Muslim chiefs as parcelled out in many principalities. The greatest event of the contemporary period that affected Uttar Pradesh was the elevation of Agra as a sub-capital by Sikan-dar Lodhi. The last years of Lodhi rule were full of moral degeneration, economic exploitation, political chaos, administrative confusion and utter lawlessness. Sycophancy, nepotism and favouritism attained such new heights that self respecting deserves were not only ignored but put to many humiliations. This enraged and compelled some chiefs and local rulers to invite Babur a Chaghtai Turk, who had the blood of two barbaric hordes in the persons of Timur and Changez Khan running in his veins. Babur availed the golden opportunity. His hosts had mistaken him to be a horde like Timur and Mahmud Ghazanavi who would loot and plunder the riches of India and go back thereby creating an opportunity for the local chiefs to come to power. But by the time Babur emerged to be an invader he had given up the lure for riches and instead developed an ambition of empire building. He defeated the last Lodhi ruler Ibrahim Lodhi in the first and historic battle of Panipat in A.D. 1526 mainly because of the internal intrigues and strifes that had crept deep into the *body politic* of erstwhile India. Finding his intentions to be of an empire builder in India his hosts who themselves had differences decided to nip the evil in the bud. But Babur and his forces on account of their initial successes felt more encouraged and determined to extricate everyone who stood in their way. This way Babur gave a dogged fight to the combined Indian forces in the historic battle of Kanwah and sealed the fate of Hindu and Muslim rulers once for all for another four coming centuries. No doubt the Afghans resisted the Mughal intrusion in the Ganga valley, Sambhal, Jaunpur, Ghazipur, Kalpi, Etawah and Kannauj. Yet, their disarranged, heart broken and poorly armed forces had ultimately to surrender to the well organised, disciplined, well armed and inspired Mughal forces. Babur laid the foundations of the Mughal Empire in India but his son and successor, Humayun, was routed by the Afghan Chief, Shershah Suri. Chunar, Chausa and Bilgram, the sites of bloodiest battles between Mughal and Afghan forces, were all located in Uttar Pradesh. So long as Sher Shah Suri ruled this part he kept Humayun tumbling through. Sher Shah Suri himself was killed in a keenly contested battle at Kalinjar against the Chandels in A.D. 1545.

With the death of Sher Shah Suri, a brilliant son of the Indian soil passed away and the turmoil and chaos that subsequently

followed did not allow other Afghan successors to keep their hold over Hindostan. Then followed the most significant events of medieval Indian history. Humayun once again succeeded in capturing the throne of Delhi. After his death, Akbar succeeded in keeping his hold over Hindostan because of a chance arrow which struck the eye of Hemu, a capable, brave and leading Hindu general against whom Akbar had to fight in the second battle of Panipat in A.D. 1525. With Akbar, a ruler with farsightedness and secular outlook, India entered a golden period of economic regeneration, brotherhood, tolerance, peace and Hindu-Muslim Unity. Two of the *navratnas* of Akbar, Birbal and Todar Mal, hailed from Uttar Pradesh. Akbar tightened his grip over the Ganga-Yamuna Doab, which was then not only the 'heartland' of Hindostan but also the granary and economic hinge of the Mughal empire. "Akbar shifted his capital from Delhi to Agra not only to control the Malwa passage-way but also the Doab and the southern fringe zone more tightly."<sup>15</sup> Akbar's successors, Jahangir and Shahjahan, continued Akbar's policy of toleration and grip over Uttar Pradesh though with a decreasing degree. Shahjahan, the prolific Mughal builder, gave many buildings to Uttar Pradesh which have now become historical monuments of India. Agra continued to be the capital of Hindostan till Shahjahan shifted it to Delhi.

Aurangzeb, the last Great Mughal, gave up the policy of secularism and toleration. He imposed humiliating and insulting taxes like *Jeziya* on Hindus. This enraged the Hindus and they revolted against the authoritarian and inhuman policies of Aurangzeb in different parts of India. During the life-time of Aurangzeb the banner of revolt was raised under the leadership of Veer Chhatrasal in Bundelkhand. The Bundelas continued their struggle for about half a century, of course, with short-lived lulls. The local aspirants to power had never kept quiet even throughout the reign of the Great Mughals. But with the gradual decline of the Mughal authority at Delhi the Rohillas in Rohilkhand and Jats of Ganga-Yamuna Doab also the Marathas from the south came out to control this tract, the nucleus of Hindostan. Awadh became independent of Mughal control in A.D. 1720. "The effective rulership of the Mughals sometimes hardly extended beyond Delhi, or, the fort area, while the countryside was under invasion, counter invasions and loot and plunder of various local and regional powers."<sup>16</sup> In his struggle against the Delhi empire Veer Chhatrasal had to accept assistance and support in men, money and material

<sup>15</sup> *Ibid.*, p. 129.

<sup>16</sup> *Ibid.*, p. 129.

from Baji Rao Peshwa. This way Marathas niched their hold over Uttar Pradesh. The Subedar of Awadh, Sadat Khan, declared himself independent in A.D. 1732. His successors remained independent of the central kingdom upto A.D. 1856. At the same time Rohillas snapped link with the central authority and continued to have an independent hold over Rohilkhand till A.D. 1774. In that year the Nawab of Awadh subdued and annexed the Rohillas with the help of the East India Company. For some time the Marathas tried their best to capture control of the Ganga-Yamuna Doab but their expansive designs as well as their fate in northern India were sealed in the Third Battle of Panipat in A.D. 1761. Taking full advantage of this opportunity the British started strengthening their position in the Doab region.

The third Nawab of Awadh, Shuja-ud-Daula (A.D. 1754 to A.D. 1775) came in contact with the East India Company. After being routed from Bengal, Nawab Mir Qasim entered into an alliance with the Nawab of Awadh in A.D. 1764 against the British. The well armed and better organised forces of the East India Company gave a spine-breaking blow and defeat to the combined forces of Awadh and Bengal in a hotly contested battle at Buxar. The Nawab of Awadh had to part with Kara and Allahabad as war indemnity to the East India Company. Thereafter, the Britishers started capturing territory after territory from the Nawab of Awadh sometimes by way of threats, sometimes by way of persuasions and lures. This way British got some territories in the years 1775, 1798 and 1801. Lord Lake also captured some of the territory of Scindia of Gwalior. All such got and annexed territories were merged with Bengal. In the year 1816 when Gurkhas lost to the East India forces in Uttar Khand they had to enter into a very humiliating treaty. In accordance with this treaty, signed with the British, at Sagauli in A.D. 1816, the Gurkhas surrendered the present Kumaon, Garhwal and Dehradun districts to the East India Company. The area so far annexed or tactfully captured by the British was merged together and named as North-West Province. In the year 1856 Lord Dalhousie, while pursuing his policy of aggrandisement and annexation, merged the Awadh with British territory. Awadh was placed under the control of a British Chief Commissioner. The last Nawab of Awadh, Wajid Ali Shah, was exiled to Calcutta and granted pension.

No contemporary account of Uttar Pradesh would be complete without the poignant saga of Indian Joan of Arc, Maharani Lakshmi Bai's heroic stand against the British forces during the First War of Indian Independence in A.D. 1857. This sacred battle had been initiated by an Uttar Pradesh brave soldier Mangal

Pandey and it soon engulfed the entire central India. Historic personalities like Maharani Lakshmi Bai, Tantiya Tope, Nana Sahib Pharnvis, Azimulla Khan, Khan Bahadur Khan, Begum Hazrat Mahal of Awadh, Bakht Khan, Maulavi Ahmad-Ullah-Shah, Rana Beni Madhav Singh, etc., shed their blood and fought tooth and nail against the British expansionism. Among all these towering personalities and fearless freedom fighters the Rani of Jhansi, Lakshmi Bai, tall in figure, handsome in looks, youthful, intrepid, unyielding and martial in bearing stands as a path builder and towerhouse for freedom fighters of all races and all times to come. Offended by the unjust confiscation of her adopted son Damodar Rao's estate under Lord Dalhousie's Doctrine of Lapse she came out of the seclusion with the hope of wreaking vengeance upon the British. She inspired and gave a heroic leadership to the rebels in a way that has now become a fact of recorded history. She pounced upon the British forces with a thundering courage and lightning speed. Her enterprise in the initial stage succeeded to such an extent that the British defenders had to surrender themselves and their arms. "The frightful massacre of Europeans that followed the initial triumph of the rebel forces, was an outburst of fury and madness which it was impossible for the queen to control. In any case, her own complicity in this dark deed is not provided by any trustworthy evidence."<sup>17</sup>

Unfortunately, the success of the Rani proved shortlived. The British Commander, Sir Hume Rose, laid a siege to the Jhansi fort with a large army and augmented resources. The Rani fought with her troops shoulder to shoulder. She moved from post to post and bunker to bunker offering inspiration to brave soldiers. "The defence was heroic, but the rebel army, at last, being outnumbered and outgeneralled, broke under superior pressure. In the hour of defeat, it fought with determined fury and invincible courage, neither soliciting, nor giving quarter. While retreating they struck back doggedly with swords in both hands, until they were lulled. Indeed, never had the rebels covered themselves with greater glory than at the fort of Jhansi under the inspiring leadership of Rani."<sup>18</sup> When all hope was lost the Rani jumped in the darkness from a window in the turret and mounted her favourite horse. Her speed while fleeing from the fort amazed her foes and followers. She sacrificed herself at the altar of the mother India in a soldierly way at the battle of Gwalior and the saga of her soldierly death has become an unforgettable chapter in the annals of India's First War of

17 Chatterji, Nandlal; *Glories of Uttar Pradesh*, Lucknow, 1957, p. 51.

18 *Ibid.*, p. 51,

Independence. With Damodar Rao tied on her back, the reins of the horse in teeth, she wielded the swords with both hands and continued to take a heavy toll of British troops even when she lost one side of her face till she fainted and was removed by one of her trusted Muslim Lieutenants to a farther place for her last rites. Her Muslim zealot follower consigned her mortal remains to fire before the British troops could reach the scene and thus fulfilled her last wish of not allowing the *ferangi* to touch her dead body. The enemy Commander, Sir Hume Rose, has paid a just and apt tribute to this brave daughter of India saying that she was "the bravest and best military leader of the rebels".

This way the British succeeded in annexing Jhansi also. Indians lost in their First War of Independence and the defeat reminds us of our internal weakness, inferior arms and war equipment and also of the British policy aiming at high-handedness, false hopes, lures and breach of trust. After the failure of our first freedom struggle the Delhi division was separated from the North-West Province in 1858 and also the provincial capital was shifted from Agra to Allahabad. The same year on November 1, through a royal proclamation the political administration and power in India was transferred from the East India Company to the Crown. Thus Queen Victoria became the first supreme alien administrator of our land.

In A.D. 1877 the Lieutenant Governorship of North-West Province and Chief Commissionership of Awadh were merged together. Since then this expanded territory came to be known as United Province, Agra and Awadh. In the year 1921 the Province was put under the control of a Governor and its capital was shifted from Allahabad to Lucknow. In the year 1937 its name was shortened to United Province only.

### Freedom Movement

As already stated the initial spark of India's First War of Independence burst on the soil of this state in 1857 and the first *ahuti* (sacred pouring) in this *Mahayagya* (sacred festival) was put in by the brave son of Indian soil, Mangal Pandey, in this state. The self-respecting soldier revolted against the unjust, domineering and inhuman treatment by his British Officer whom he attacked and was himself executed. The bloodiest battles in this war were fought in Uttar Pradesh and its vicinity at places like Jhansi, Kanpur, Bareilly, Awadh and Gwalior. As ill luck would have it we lost this war because of reasons now well-known to the historians the world over. But the spark of freedom which had ignited the fire and urge for freedom could not be extinguished by any length of time. The British, on the other hand,

spread means of transport, communications, education and carried on scattered programmes of economic development, particularly in this province, to achieve a dual aim. They needed the expansion of all these activities on strategic grounds for tightening their own grip although they gave the appearance of public welfare. To overcome the hostility of the masses, prominent persons were awarded medals and given glories, estates, status and many other attractions. But all this failed to subdue the enthusiasm of freedom loving people. Assessing the strategic value of the state the British overlords showed signs of soft attitude and tried to pacify the people through economic regeneration but born rebels could never be cheated. Secretly, there had always been an underground movement to rout the foreign rule. The heroic deeds of their forefathers sung and told all over the length and breadth of the province in the form of ballads and folklore, inspired the freedom loving people.

The role played by the freedom fighters of Uttar Pradesh in the freedom struggle of India, before and after the advent of Mahatma Gandhi is a memorable and glorious chapter of our heritage and history. During the initial days of the Congress movement, leaders of the stature of Ayodhya Nath, Ganga Prasad, Sundar Lal, Wazir Hasan, Moti Lal Nehru and Madan Mohan Malviya rendered a yeoman's service to the party and the nation. At a later stage a spirited and brave patriot joined the freedom movement. He was Pandit Jawahar Lal Nehru whom neither *lathi* blows nor prison cells could break or compel to deviate from his path. The Late Pandit Govind Vallabh Pant was stalwart from Garhwal who fought for freedom shoulder to shoulder with Jawahar Lal and other national heroes. In a severe lathi charge on Pandit Nehru, Pandit Pant shielded the former with his robust figure and received all the lathi blows on his own body. The greatness of Uttar Pradesh is epitomized in Jawahar Lal and it is the crowning glory of Uttar Pradesh to have produced the first three Prime Ministers of India. The late Lal Bahadur Shastri, a humble, meak and soft spoken person was 'a rose with an iron stem'. Born of a poor family he had undergone many hardships during freedom movement. An austere, unpretentious but unyielding Prime Minister, Lal Bahadur Shastri achieved in eighteen months what most leaders fail to achieve in eighteen years. Indian to the core of his heart and a worshipper of true Indian cultural heritage, he would be remembered as one of the greatest leaders our nation has produced. All these leaders worked ungrudgingly and zealously for arousing and awakening the masses of this most populous state of India to rise in revolt against the British regime. After the advent of Mahatma Gandhi, Uttar Pradesh took a leading part in the Non-

Cooperation and Quit India movements. Innumerable young men and women laid down their lives for the sake of the motherland. Chandra Shekhar was one such youth from this tract who spread terror for the British regime in many parts of the country. Even the martyrs Bhagat Singh, Sukhdev and Rajguru spent some time in this province to receive training and instruction for their struggle. Bhagat Singh spent some time at Kanpur as an unknown man. It was at Kanpur that Bhagat Singh came into contact with great revolutionaries like Manni Lal Awasthi, Yogesh Chandra Chatterjee, Batukeshwar Dutt, Ajay Ghosh, Vijay Kumar Sinha and Shri Ganesh Shankar Vidyarthi. Bhagat Singh worked in the editorial section of *Pratap* under the name of Balwant Singh. The police and other investigating agencies became alert due to the activities of this self sacrificing young man. At this stage Vidyarthiji sent him to Shadi Pur (Aligarh) to head the national school there. This way the sacred soil of Uttar Pradesh trained many terrorists.

Finding absolute unity between Hindus and Muslims of Uttar Pradesh for many years the British rulers had tried to sow the seeds of discordance among these two communities. This time they gave a communal tinge to their policy of 'divide and rule'. Sir Sayyad Ahmad Khan, a Muslim intellectual was entrapped in this net. Under the banner of 'Muslim renaissance and Muslim regeneration' this Grand Old Man of Aligarh started a movement which ultimately led to communal disharmony. The British made him propagate a view that India does not have its own national culture and instead it was a land of mixed social cultures. This helped the British to get their stronghold over this vast province and ultimately over India. This unfortunate policy also sowed the seeds of communal hatred and disharmony among the Hindus and Muslims of India. The British Government helped Sir Sayyad Ahmad Khan to found the Aligarh Muslim University. Later on this led to the foundation of Banaras Hindu University. This clearly showed that when these sacred temples of learning were being founded on communal basis communal hatred had slowly and gradually seeped into the veins and blood of both the communities. The vicious and evil designs of the British were not kept limited to Uttar Pradesh or India. The British got this fire of hatred spread in other Muslim countries also. Under the slogan of 'Islam in danger' the Britishers succeeded in arousing communal feelings of Irani, Iraqi, Turkish, Arabic and other Muslims living beyond the Indian shores. This separatist tendency had its strongest hold in Uttar Pradesh and because of this reason only some people remark that Pakistan was born in Uttar Pradesh. In spite of the best efforts of Mahatma Gandhi, Pandit Jawahar Lal Nehru, Maulana Abul

Kalam Azad, Rafi Ahmad Kidwai and Asaf Ali to maintain communal harmony and prevent the division of mother India, the Britishers succeeded in their evil designs through fanatic leaders like Mohammad Ali Jinnah and Liaquat Ali Khan.

On the midnight stroke of 14th August 1947, when on the dawn of 15th August India entered an era of Independence and self rule it was a divided India. Many days before the proclamation of Independence the communal frenzy had started taking a heavy toll of human life in many parts of India. A wave of terror and killing, loot, arson, plunder, abduction, rape and suicides spread in many parts of this land of gods, sages, saints and seers. In fact, such horrifying and bewildering tales forced leaders like Nehru and Gandhi to agree to the division of India. The contagious wave of fire, arson and rape did not spare even this sacred soil of Rama and Krishna. The land where religious reform movements swayed the people, where Gautama Buddha started preaching his doctrine of non-violence, the land which nursed the Hindu Philosophy, Vedas and Vedantas, the region where Guru Gorakhnath, Kabir, Ramananda, Tulsi Dass, Sur Dass, Malik Mohammad Jaysi carried on the *Bhakti* movement and the land which the greatest of the Mughals, Akbar, chose as a base for the propagation of his *Din-e-Ilahi* cult, stood aghast and bewildered with the human suffering in its worst form. Mahatma Gandhi undertook fasts for the restoration of peace and communal harmony. Many other national leaders toured the riot affected areas and prevailed upon the revengeful and mad people to come back to senses and revive the age old ties of brotherhood and fraternity. Slowly and gradually the hatred, violence and enmity gave way to an orderly and peaceful life.

About two and a half years after the attainment of political freedom, on January 12, 1950, the erstwhile state of the United Province was renamed as Uttar Pradesh. Thereafter, slowly and gradually many princely states and estates were got merged in this state. Besides giving three Prime Ministers, the State has also given one *Rashtrapati* (President), the highest public dignitary, to our nation.

### **The Post Independence Period**

The most populous state of Uttar Pradesh has been a pivot of Indian politics. Political changes and upheavals have been showing their repercussions on the *body politic* of our country. In early years after independence much of the energy of the government was spent in rehabilitation and resettlement of those unfortunate brethren of ours who had been affected by the partition of the coun-

try and communal frenzy. Thereafter, a fight had to be given to the local Chiefs, Zamindars and Jagirdars who were the remnants of British feudalism. Only after the feudalistic order was struck down the toiling sons of the soil got some relief in the state.

The Late Shri Govind Ballabh Pant was the first Chief Minister of the State who later on became the Home Minister of India. During his time the work on many developmental and welfare schemes had been initiated. He was followed by seasoned politicians like Dr. Sampurnananda and Chandra Bhan Gupta as Chief Ministers. The latter had quite a long span as Chief Minister of the State. But in later years resentment and restlessness crept inside and outside the ruling party in Uttar Pradesh. The situation became so tense that Chandra Bhan Gupta had to go. The ruling party also showed signs of dissensions. In a bid to oppose authoritarianism Chaudhari Charan Singh, who enjoyed popularity among the farming class of this state of cultivators, broke away from the party and joined *Bhartiya Kranti Dal*. He also headed a coalition Government for some time. The horse trading of Legislators led to the imposition of President's rule. Then, Mrs. Sucheta Kripalani headed the government in the State. Mr. Kamlapati Tripathi, a keen contender for the office of Chief Minister, however, could not fulfil his dream for a long time. But, he, somehow or other, won the confidence of Central High Command who saddled him as Chief Minister. Soon allegations of corruption, nepotism, vindictiveness and favouritism were levelled against him. Though the Central High Command and especially, the then Prime Minister, Mrs. Indira Gandhi, had a soft corner for Kamlapati Tripathi, still he could no longer be retained as Chief Minister in the State. It was a time when State Chief Ministers were not elected by the State Legislatures but the same were imposed by the Central High Command. Thus Hemwati Nandan Bahuguna, who was then in the Central Cabinet was sent to Uttar Pradesh to replace Kamlapati Tripathi who in turn was brought as a Cabinet Minister in the Central Government.

Hemwati Nandan Bahuguna on many occasions refused to toe the line of the Central leadership. He did not want to continue as a puppet Chief Minister; nor did he like to recognise such persons who had nothing to do with either the Congress High Command or the Central Government. He was self assertive as Chief Minister and refused to work as a Chief Minister who should await direction for every decision from the Central Government. Therefore he had to relinquish the Chief Ministership of Uttar Pradesh. At the behest of Central Leadership Mr. Bahuguna was replaced by Mr. Narain Datt Tewari as Chief Minister of this State during emergency.

During the Lok Sabha (Parliament) elections of March 1977 Mr. Bahuguna who enjoys popularity in Uttar Pradesh joined hands with Janata Party which had emerged as a United Opposition to the misrule and authoritarian and non-democratic rule of the Congress. Chaudhari Charan Singh, another popular leader of Uttar Pradesh, had also joined the Janata Party. Because of the coercive family planning programme and excesses committed at the behest of some persons who did not matter anything either in the State or the Central Government, this most populous State of India routed the Congress lock, stock and barrel. Out of eighty-six Lok Sabha seats the Congress could not win even a single seat. Not to speak of a single seat the Prime Minister in office lost by a big majority in this state of cultivators and labourers. For the first time, it had been proved that our illiterate, innocent and poor masses were no longer ignorant of the political developments. The history of this state has always been linked with the history of India; rather, Indian history has been created in Uttar Pradesh. No wonder this time even the State has created a new history by defeating the Prime Minister, which came, as the biggest surprise in India and abroad.

After the Lok Sabha elections in March 1977, there was a strong demand for the dissolution of Assemblies in the states where Congress had lost its grounds in the Lok Sabha polls. After a lot of discussion, debating, charges, counter charges and Supreme Court ruling the legislatures in such states were dissolved. Uttar Pradesh was one such state : Fresh elections in Uttar Pradesh were held in June, 1977. As expected the Janta Party gained a thumping majority and the Congress was routed because of the atrocities, tortures, excesses and acts of injustice committed on the masses during the critical nineteen months of Emergency. People were also sore about the way Sanjay Gandhi intervened in the state administration as they were equally sore and sad about the then Chief Minister N.D. Tewari, functioning and seeking orders from the Centre, and what is more, from Sanjay Gandhi, a non entity. Because of this attitude on the part of the Chief Minister, he came to be known as New Delhi Tewari instead of Narayan Datt Tewari. After the fresh elections, the Janata Party has constituted the popular government after a brief spell of President's rule in the State. Mr. Ram Naresh Yadav is the new Chief Minister of this 'history making' State. It is too early to comment upon the work and functioning of the government, especially when it is facing a stupendous task of clearing the economic chaos and social confusion created during the fateful nineteen months.

## *Physiography*

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The most populous state of India covering an area of 2,94,413 square kilometres Uttar Pradesh is the fourth largest state of India according to areal coverage preceded by Madhya Pradesh, Rajasthan and Andhra Pradesh. This landlocked state, covering nearly 9 per cent of the total area of our country, is surrounded by Tibet and Nepal on the north and the States of Himachal Pradesh in the north-west, Haryana in the west, Rajasthan in the south-west, Madhya Pradesh in south and south-west and Bihar in the east. Its physical frontiers are snow and verdure covered Himalaya in the north, the relict type of mountains the Vindhyas in the south-west and river Yamuna in the west. River Gandak forms a bit of its eastern boundary whereas most of the eastern boundary is artificial. Located in the northern part of our country, Uttar Pradesh is bounded between 23° 52' N and 31° 18' N parallels and 77° 10' E and 89° 39' E meridians. Consisting of 55 districts the state of "Uttar Pradesh sprawls like a colossus on the map of India, looking like a lion in an assailing posture".<sup>1</sup>

1 Tewari, A.R., *Geography of Uttar Pradesh*, NBTI, New Delhi, p. 1.

**Physical Evolution**

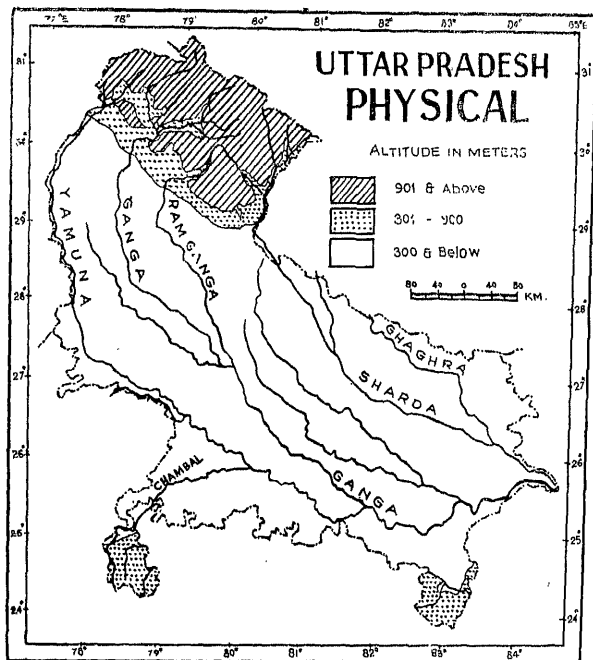
Structurally, the state of Uttar Pradesh lies between the old Indian peninsula and the recently built Himalayan chain. Most of the surface of the state constitutes the Indo-Gangetic plains, an ultra recent tract in terms of physical evolution. In its widest part the plain is about 400 kms wide and is about 2,400 kms in its length. It is like an asymmetrical trough having a definite divide constituted by the protrusion of the peninsular block in the form of the subterranean Delhi Ridge. Many geologists have expressed varying opinions with regard to the geological evolution of this region.

The Australian geologist Edward Suess suggested that the Indo-Gangetic plain was a 'fore deep' in front of the high crest waves of the Himalaya and their southward advance was checked by the solid and inflexible mass of the peninsular front. The rivers flowing down the Himalayan ranges continued to deposit their detritus right from the Pliocene period to the current times and gave birth to almost a featureless plain.

S.G. Burrard, another authority on earth sciences, opined that the Indo-Gangetic plain constitutes a deep rift valley with parallel faults on its two sides with a maximum downthrow of about 32 kms. In view of its non-conformity with geophysical and geological observations coupled with scant geological facts in support of this view, it does not hold ground now. "A third and more recent view regards the region as a sag in the crust formed between the northward-drifting Indian sub-continent in the south and comparatively soft sediments accumulated in the Tethyan as well as in the connected basins on the north. The crumpling of the sediments resulted in the formation of a mountain system."

Wadia and Anden express a different view and they base their opinion on the occurrence of old Gondwana rocks on the northern rim of the detrital belt. They opine that the Archean gneisses of the Gondwana system continue underneath the plain. The Archean floor or geosyncline that once existed here continued to sink with the process of sedimentation on it. The process of sedimentation, however, kept pace with that of the sinking of depression. Ultimately, there arose the great plain of Indian subcontinent. Glennie, yet another earth-scientist, issues a note of caution in the light of the occurrence of magnetic effect producing minerals on the southern edge of the Ganga plain and recommends a case for magnetic investigations which might lead to more fruitful results.

It has, however, been accepted by all geologists and geophy-



sicists that in the entire plain tract the strata of "alluvium is one continuous and conformable series of fluvial and sub-aerial deposits, mainly composed of unconsolidated beds of clay, sand, gravel and their mixture in varying proportion."<sup>3</sup> The total thickness of the alluvium is unknown and it differs from place to place. The deepest bored hole near Lucknow measures about 411 metres and it has failed to touch the rock bottom. Keeping his estimates on geodetic data, R.K. Oldham places the thickness of alluvium at 4000 to 6000 metres in the northern edge of the Gangetic trough and asserts that the floor of this trough carries a fairly regular upward slope towards south. H.M. Cowie, though using the same data, gives higher figures. E.A. Glennie estimated the thickness of sediments to be about 2000 metres. Since his estimates do not conform with geological facts the scientists are afraid to accept it as a reliable estimate. "The recent findings of the aeromagnetic survey of the Ganga valley have thrown much light on the depth of the alluvium and nature of the trough. It rather replaces the hypothesis of the frontal plain by the down warp."<sup>4</sup> The detritus filling on the average amounts to 1300 to 1400 metres which decreases both towards north and south. In the northern part the depth runs to about 800 metres whereas towards the southern part the detritus takes the form of a mere veneer which ultimately merges with the irregular edge of the peninsular block.

Old alluvial deposits, i.e., bangar and newer alluvial deposits, i.e., khadar are the two important constituents of lithology. The soil renewing elements of sand, clay and silt constituting khadar are found in flood plains whereas bangar dominates the scene on higher interfluvial tracts. The gravels found on the Bhabar and Tarai tracts are the loosely set sediments. Silt, clay, coarse sand, pebbles boulders and kankar find a haphazard spread in this zone along the foothill zone of Shiwaliks.

The bangar land is often 5 to 7 metres above the highest and 20 to 25 metres above the lowest level of the Ganga. The carbonate of lime nodules, locally termed as kankar, have a wide occurrence among the bangar tracts. "One distinctive character of the bangar is the formation of kankar pans in the sub-soil zone through capillary action owing to the alternating calcareous sand and clay beds here as also elsewhere in the zone of seasonal rainfall, which adds to soil moisture retention in the sub-soil zone."<sup>5</sup> The gentle slope

3 Mathur, R.N., 'Some characteristic features of water table in Meerut District, U.P.' *N.G.J.I.* VII (4 Dec. 1961), p. 269.

4 Singh, U., and Verma, R.V., *op. cit.*, p. 129.

5 *Ibid.*, p. 131.

of the land and alluvial composition of the soil has resulted in the saline and alkaline afflorescence in some patches of bangar. The gradient in most of the state is about 1 metre per 5 kms. Sluggish movement of water downwards caused by gentle slope leads to some detrimental effects also. In heavier monsoonal rainfalls the minerals are washed down to the deeper horizons of the soil but during dry summers leaching is retarded and evaporation at a vast scale exerts a capillary action on the solution contained in the pores of the soil. This way a white crystallized layer of salts infects the top soil.

The khadar occupies the lower levels liable to floods during inundation periods. "The low level of the khadar land is in conformity with the principle that as a river gets older, more and more of its deposits are found to be of a younger age, and as the bed of the river sinks lower, these younger deposits come to occupy a level lower than that occupied by the earlier ones."<sup>6</sup> The khadar, in fact, is obtained by the erosion of bangar tracts. Khadar is a vast expansion in the eastern part of the province. Khadar does not contain either reh or kallar. But the khadar deposits of Ghaghra and Ganga differ in their composition. Ganga khadar is mainly made up of mud but the undesirability of inundation by Ghaghra increases the fertile contents in the khadar deposits.

### **Relief**

With the exception of coastal lowlands, all other landform regions of India are found in Uttar Pradesh, namely, a northern mountainous region along with bhabhar-Tarai tracts, Ganga plain and the northern front of peninsular plateau with its relict hills. However, half of the total area of the State is covered with the plain of Ganga and its tributaries. It will be quite apt to call the State a gift of Ganga and Yamuna on a similar basis as Egypt is known as the gift of Nile. The areas watered by these two mighty and sacred rivers of India form the granary of the State and these are also the heavily and densely peopled parts of the State. Majority of the industrial modes, commercial hubs and trade centres of the State are concentrated in these areas. Many of the lines of transport, the arteries of business and trade and the educational institutions of the state are limited to this tract. "A total absence of the rivers would have changed the whole aspect of the country which, instead of being a thickly populated agricultural area, might have been a poor Savanna land, and the people would have had a different tale to

tell.”<sup>7</sup> As already stated, the State of Uttar Pradesh can be divided into the following three regions :

### I. THE MOUNTAINOUS TRACT

The mighty Himalaya stands as a graceful and guarding castle on the northern frontier of Uttar Pradesh. The Garhwal and Kumaon tracts or Uttar Khand fall within this region covering an area of about 45,485 square kilometres. This mountainous belt is comparatively a new land form which consists of pyramid like lofty and hoary headed peaks, verdure clothed hill ranges and awe inspiring gorges and deep valleys. The huge crawling glaciers, sheets of ice, bush green vales, enchanting streams and crystallised clear water containing lakes and musical sounds creating waterfalls give birth to a variety of panoramic and attractive views. This relief region consists many mountain ranges which, in accordance with their structure and altitude, are further sub-divided into three subdivisions.

- (i) Outer Himalaya or Shiwalik hills,
- (ii) Lesser or Central Himalaya or Himanchal,
- (iii) Inner or Greater Himalaya or Himadri.

*Outer Himalaya* : This Himalayan belt ranges in its altitude from 300 to 600 m. above sea level, and is profusely forested on its northern slopes. It is situated in between the Ganga plain on the south and main boundary fault of the Lesser Himalaya on the north. These hills are the formations of tertiary period by the accumulation of detritus brought down by the rivers. These hills are clothed with thick green forests. At places the Shiwalik hills are separated from each other by flat longitudinal valleys known as ‘duns’. Dehra Dun is situated in one such Dun valley. Kohtri, Chaukhamba, Patli and Koti are other prominent duns of this area. However, the 35 kms long and 25 kms wide flat bottomed Dehra Dun is the biggest and most developed Dun of Uttar Pradesh. The Shiwalik zone, very often called a ‘pile of rock waste’ has recently undergone folding, faulting and thrusting.

Immediately to the south of Shiwalik ranges is located the detrital piedmont skirting the ranges. Finding their slopes suddenly decreased and courses flattened the hill torrents stand bewildered and

deposit most of their course material consisting of boulders and gravels at the foot of these hills. This porous sediment cover is termed as Bhabar (the Ghar of the Doab tract) in the local usage. The rivulets during their inundation period get lost in this loosely deposited talus but reappear at the outer edge and thereby make the land swampy and marshy.

Towards the southern margin of the Bhabar is situated a zone of swampy terrain locally known as Tarai. Originally, this belt extended over a width of 80 to 100 kms, but now as a result of reclamation, deforestation and settlement schemes the width of this zone is shrinking. Subsoil and copious rainfall are responsible for the Tarai belt which runs parallel to Bhabar. Tall grasses and reeds replace the forests in Tarai. The marshy environment has made this area suffer from the ravages of malaria and other insect born ailments in acute form. Apart from accelerating the menace of soil erosion and making the land unproductive as well as unfit for cultivation, Tarai, the zone of seepage also becomes a source for some streams like Sukhata, Deoha and Gomti.

*Central Himalaya* : To the north of Shiwalik ranges, the Himanchal or Central Himalayan tract covers a belt of approximately 75 kms width and it is separated from the Dun by the main boundary Thrust. This means that this zone is bounded by Main Boundary Thrust on the south and Main Central Thrust on the north. Because of intense compressional forces this tract has undergone, the tract is mainly composed of metamorphic rocks varying in age. The entire zone is a tangled tract of series of ridges separated by deep valleys. The average altitude of the ranges in this zone varies from 1500 to 2700 metres above sea level whereas the valleys are situated at heights between 500 to 1200 metres. The valleys are generally convex in form with steep scarp like valley walls. The location of a lake belt (25 kms  $\times$  4 kms) in the southern part of this region is the special feature of Himanchal. Besides the Nainital lake, other prominent lake basins of this fringe are Bhima Tal, Naukuchiya Tal, Puna Tal, Sat Tal, Khurpa Tal, Sukha Tal, Sariya Tal and Gohna lake. The low lying open basins of Kumaon are generally the result of landslides. However, these lakes have added to the scenic charm of this zone. The hill resorts of Mussoorie, Nainital, Chakrata and Lansdowne are situated in this zone.

*Greater Himalaya* : The entire north-western mountainous zone of the state falls within the Greater Himalayan tract or Himadri having an average width of about 50 kms. The average altitude of the zone varies from 4800 to 6000 mtrs. above sea level which cul-

minates in Nanda Devi peak (7,817 m) the second loftiest peak of India. The glacier garlanded peaks of Bandar punchh (6,315 m), Kamet (7,756 m), Dunagiri (7,066 m), Trishul (7,120 m), Gangotri (6,614 m), Kedarnath (6,940 m), Chaukhamba (7,138 m) and Nanda kot (6,861 m), U-shaped higher valleys and glaciated lakes render heavenly charm to this region. Peaks fall in four blocks which have been separated from each other by transverse gorges of Alaknanda, Bhagirathi and Dhauli Ganga. "The cross profiles of these valleys show convex form with steep valley walls reflecting the rising phase of the Himalaya and also the younger characteristics of the rivers."<sup>8</sup>

Apart from the sources of the sacred rivers of the Ganga and Yamuna the Gangotri, Kedarnath and Melam glaciers also flow in this zone. The glaciated landscape of Himadri can safely be compared to the yellowstone park or Yosemite National Park of the U.S.A. Since time immemorial Himadri has been a pilgrim-paradise for Hindus. This belt with a lofty mountainous wall also acts like a barrier to the on-coming Bay of Bengal as well as Arabian monsoon currents, helping them to rise higher and shower copious rainfall in this region.

## II. THE GANGA PLAIN

Covering about half of the area of the State the Ganga plain extends in a north-west to southeast direction. With the exception of hillocks and stone riders in the west of Mathura the plain nowhere rises above 300 m. in its altitude. Apparently a featureless plain, this vast level tract lacks topographic prominences and its monotony is broken only by river bluffs, levees, deserted river channels, the present river channels themselves and comparatively deeper ravines. Structurally, this plain has come into existence by way of detritus deposition brought by the antecedent and consequent streams in this once deep and vast geosyncline. The estimated and average depth of this geosyncline is said to be varying from 1500 to 2000 mtrs. The deepest part probably lies in the closest vicinity of the Himalaya. Because of the softer sediments found all over the plain the tract excels all other regions in fertility and is, therefore, usually termed as the granary of our country. The wide, deep cut valleys, still inundated during floods, are known as khadar whereas the older alluvium away from flood channels is known as Bangar. "Many times, the rivers divert their courses during floods and carve

<sup>8</sup> Kharakwal, S.C., *U.P. Himalaya in India : A Regional Geography* (Ed. R.L. Singh), Varanasi, 1971, p. 448.

out entirely new channels for themselves through 'Bangars'. Such a course may be traced in a line of swamps from Aligarh to Farrukhabad which occurred some time during the reign of Akbar (1556-1606). Such changes take place even at the present time."<sup>9</sup>

The plain on the whole includes the Ganga-Yamuna Doab which has been commanding the approaches to the Malwa of Central India since time immemorial and further to Deccan. This area formed the core of the pre-Mughal Sultanate of Delhi. Other significant part of the plain is the Awadh plain, the hub of Ayodhya rulers in ancient times. In medieval times it remained mainly under governors but a later stage Awadh was created as a separate State by a more clever, ambitious, tactful and powerful governor. Between these two tracts lies the Rohilkhand named so after the Rohilla Afghans who dominated the post-Mughal anarchy here. Rampur, now a district of the State but formerly a princely state was the survivor of Rohilla power in this region.

Throughout this physiographic division local slopes have a preponderance over regional slopes. The long and parallel channels of streams like Kali, Hindan and Pandu present an evidence of this fact before they meet their master streams. The trans-Yamuna or Yamuna-Lower Chambal tract presents distinct though insignificant topographic expressions. "The degradational work of the Chambal and its ephemeral effluents present deep entrenching of the softer alluvial banks sometimes upto 5 kms away from the main channel, thus resulting in the ravine landscape or a bad land topography, a feature not very uncommon with other streams but hardly comparable in magnitude to this tract."<sup>10</sup> These deep cut valleys are separated from each other by a way of sandy stretches (Bhurs), buttresses and sharp spurs which are otherwise very prominent features of this part locally known as Yamunapar.

### III. THE SOUTHERN HILLY TRACT

Two small pockets which considerably differ from the main topography of the entire State fall under this region. These hilly tracts are the parts of the southern plateau of India. In these pockets the low relict hills in almost west-east trend find dominance. The highest altitude of these residue hill ranges hardly attains a maximum altitude of 450 mtrs. above sea level. The western part is a badly dissected plateau known as Bundelkhand whereas the eastern part named as Vindhyan plateau.

<sup>9</sup> Tewari, A.R., *op. cit.*, p 10.

<sup>10</sup> Singh, U., and Verma, R.V., *op. cit.*, p. 131.

Bundelkhand is found below the eastern slopes of the great plateau and presents a gradual gradient from the south-west to north-east. The smooth and undulating character of the tract has been termed as 'Senile topography' by O.H.K. Spate. This belt with subdued topography tends to grade into a perfect level plain and ultimately merges into the Yamunapar tract. The streams flowing over this belt on entering the Yamunapar engage themselves in active erosion and have resulted in the formation of extensive and fantastic ravine lands. The rocky hills have broken up this tract in its southern part. Hill ranges are gifted with considerable patches of rich black soil.

The eastern part of the Vindhyan plateau jets into the Mirzapur district of south-eastern Uttar Pradesh. The scarps of the Vindhyan sandstone and the hill-valley complex overlook the Ganga plain. The northern scarps have been badly notched by the tributaries of Ganga making them quite irregular and their indentations extend for a considerable distance together. The Vindhyan ranges enter Karvi tract and Kaimur ranges extend to the north of Sone valley in Mirzapur district. The rest of the parts include an amalgam of broken low hills, valleys, ravines, alluvial soil patches and forests. Geologically, the Vindhyan are composed of sandstone. The Kaimur sandstone is quite compact in structure with a light red colour which is quite pleasing to look at. Besides being attractive to look at the Kaimur sandstone is quite durable and a good building-material. The limestone found here is used in manufacturing cement. The Vindhyan sandstone reacts quite effectively to carving.

### **Drainage**

"I wonder if there ever will be somebody wise enough and knowledgeable enough to write the story of our rivers. What a wonderful story they would make ! Let us take the story of Ganga. It would be the story of India and more especially of Northern India."<sup>11</sup> Our rivers have played a very vital role in shaping the history, culture, economy and society of our country. Many battles, struggles for power, rises and falls of mighty kingdoms, fairs and festivals, composition of our ancient literature, all such events have taken place along the banks of our enchanting rivers. Since ages the rivers have continuously been depositing fine sediments on the bosom of our motherland thus ever increasing the fertility of mother

11 Nehru, Jawahar Lal, Inaugural address on the Silver Jubilee Celebrations (17 November 1952) of the Central Board of Irrigation and Power.

earth that has been sustaining millions of human beings since unknown times. In good old days when there were no roads and railways the streams of India were the important means of trade, commerce as well as communications. The location of our pilgrimage centres, trade centres and commercial hubs on the river banks and confluences testifies to this fact. "The sanctity attached to many of our rivers and the easy means of communication that they and their valleys afford have greatly influenced the mobility of the people and facilitated social contacts. These contacts, either in the shape of pilgrimages or for trade and commerce, have resulted in an exchange of thoughts, manners and customs. The river systems of the land have not only made agricultural pursuits easier, but have also sustained the vast majority of the people."<sup>12</sup>

The well integrated drainage pattern of Uttar Pradesh is well knit by the Ganga, its tributaries and effluents. The mountainous area of northern Uttar Pradesh is drained by the Ganga, Yamuna and Kali. All these streams originate from the glaciers of the Himalaya. Ganga, formed by the combined waters of Alaknanda, Bhagirathi, Pindari and Mandakini streams is the mighty river of our motherland. In the plain tract Ganga is joined by the Yamuna, Ghaghra, Rapti, Gomti, Ramganga, Tons, Sone, etc. Yamuna comes out of the Yamnotri glacier and gets water from Chambal, Sindh, Betwa, Ken, etc. in its plain tract. It is to be noted that as compared to the southern rivers originating on the peninsular block the northern, i.e. Himalayan, rivers are more active in the deposition of silt as also for providing irrigation facilities as they have perennial supplies of water from the torrential monsoonal rainfall supplemented by melting snows. The imperceptible gradient of the plain allows a continuous and rich deposit of sediments which renews the fertility every year. Many seasonal streams like the Muskras, the Punja, the Solani, the Ratmau, the Pilakhar, etc., drain the submountainous and southern slopes of the Shiwaliks. The streams like the Kali East, the Sot, the Sai, the Kalyan, etc. are entirely plain streams coming out of the depressions or Tals in the Bangar tract. Most of the Vindhyan streams go dry during hot summers and become only streaks of water.

*Ganga* : Ganga is the most sacred river of India. It is also the strongest river of the world in the sense that its bottled water does not get defiled for years together. Rivers like Yamuna, Godavari, etc., are all significant and sacred rivers of India but more important is "The Ganges, above all the rivers of India, which has held India's

heart captive and drawn uncounted millions to her banks since the dawn of history. The story of the Ganges, from her source to the sea, from old times to new, is the story of India's civilization and culture, of the rise and fall of empires, of great and proud cities, of the adventure of man."<sup>13</sup> Ganga means many things to many people. To millions of Indians the river washes the sins, to many it gives life giving waters, to traders it has given numerous trading centres that have developed on its banks, to lakhs of farmers it gives renewed fertility every year and to adventurists it renders an opportunity to adventure along its banks. This way Ganga is the mightiest of all the Indian rivers. "The Ganga, especially is the river of India, beloved of her people, round which are intertwined her racial memories, her hopes and fears, her songs of triumph, her victories and her defeats. She has been a symbol of India's age long culture and civilization, ever changing, ever flowing, and yet ever the same Ganga. She reminds me of the snow covered peaks and the deep valleys of the Himalayas, which I have loved so much, and of the rich and vast plains below, where my life and work have been cast."<sup>14</sup>

According to Puranic literature, Ganga is the daughter of King Himavat and his consort nymph Menka. Sage Bhagirath, the saintly descendant of king Sagara, persuaded Ganga to come down to earth from the heaven, to redeem sixty thousand loose-living sons of the King and Queen Sumati, who had been reduced to ashes by Kapila Muni whom they had treated in a disrespectful manner. Ganga got annoyed on this attempt and Lord Shiva in order to save the earth from her wrath caught Ganga on his brow and checked its course in his matted locks. Then Ganga descended from Shiva's locks in seven streams (*Saptasindhava*) but her descent disturbed the meditating sage Jahnu who drank the whole of it but later on allowed it to flow out of his ear and since then Ganga is also known as Jahanavi. Goddess Ganga became the wife of King Shantanu and gave birth to Bhishma. Ganga has variously and metaphorically been described.

Ganga comes out of the Gomukh cave in the vicinity of Gangotri. Though Ganga is said to originate at Gomukh yet Bhagirathi, Mandakini, Alaknanda and Dhauli Ganga and Pindar streams all originating in Uttar Khand are the source streams of the mighty Ganga. All these streams join to form the Ganga at Devaprayag. It is only beyond Devaprayag, the major confluence of Bhagirathi and Alaknanda, that the river is known as Ganga. "The Ganga

13 Nehru, J.L., *The Discovery of India*.

14 Nehru's Will and Testament.

having its catchment area in the snowy Himalaya flows with an average gradient of 9.5 cms per km from west to east. It has been thwarted by the plateau offshoots towards the south. At places the projected spurs and outlines are visible in the districts of Mirzapur, Monghyr, Bhagalpur and Santhal parganas."<sup>15</sup> After traversing about 500 kms of mountainous course Ganga enters the plain tract at Haridwar. Passing through the States of Uttar Pradesh, Bihar, West Bengal and Bangladesh it falls into Bay of Bengal in the form of many distributaries. Alaknanda is the initial tributary of the Ganga and meets the latter at Dev Prayag. Kedarnath, Badrinath, Gangotri, Dev Prayag, Haridwar, Allahabad, Varanasi and Patna are the important pilgrimage centres of Hindus located on the banks of Ganga. Yamuna, Sarda, Gomati, Ramganga, Ghaghra, Gandak, Kosi, Sone and Damodar are its important tributaries. Brahmaputra also meets the Ganga before falling into the Bay of Bengal. The total length of this mighty river is 2,525 kms out of which a 1,450-km lay course lies in Uttar Pradesh alone.

Some great personalities of India have at one time or the other been associated with this mighty river. Swami Vivekananda, Swami Ram Tirath, Netaji Subhash Chandra Bose, Mahatma Gandhi, Pandit Moti Lal Nehru, Pandit Jawahar Lal Nehru, Pandit Madan Mohan Malviya and Lal Bahadur Shastri are such personalities.

*Yamuna* : Yamuna, the second most sacred river of India, is closely associated with the life and works of Lord Krishna. Besides, Narad-muni and great musicians Hari Dass, Tansen, Baiju Bawra have been closely associated with the Yamuna. The Great Mughals loved the varying moods of the Yamuna and adorned its banks with magnificent buildings like Red Fort at Delhi, the Agra Fort and Taj Mahal, the dream in marble. According to Puranic literature Yamuna is Sun's daughter and Yama's sister. Sun is the god of valour and Yama controls death. Therefore, Lord Krishna got most of his determination and strength from Yamuna. "The river originated in the post-mid-Miocene age, consequent on the second phase (main phase) of the upheaval of axial ranges. Its headwaters are formed by several melt streams, the chief of them gushing out of the morainic snout at an altitude of 3,225 metres, 8 kms north-west of the Yamunotri hot springs, at 31° 2' 12" N and 78° 26' 10" E".<sup>16</sup> The river has a very steep gradient in the Himalayan tract but it gradually assumes a gentle to flat profile in the plain area. This is

15 Singh, U., 'Middle Ganga' in *Mountains and Rivers of India* (Ed. Law, B.C.) 1968, Calcutta, p. 376.

16 Kaushic, S.D., 'The Yamuna' in *Mountains and Rivers of India, op.cit.*, p. 396

evident from the fact that though it rises at an altitude of 6,387 metres (Bandarpunchh peak on which lies the Yamunotri glacier) the confluence at Allahabad has an altitude of only 94 metres above sea level.

Yamuna comes out of the Yamunotri glacier at an elevation of 6,387 mtrs. For some distance it flows forming a boundary between Uttar Pradesh and Himachal Pradesh. Thereafter, Yamuna forms a boundary between Uttar Pradesh and Haryana. It receives the important tributaries in the form of Chambal, Ken and Betwa. Like Ganga it waters the fields of lakhs of farmers and thus helps in the renewal of soil fertility every year. Mathura is a holy Hindu pilgrimage centre along its banks. The Capital of our great nation is situated along the bank of this river. Agra, the medieval capital of the Great Mughals, also lies on the bank of this river.

In its mountainous tract it receives many tributaries like the Rishiganga, the Umaganga and the Hanumanganga. The Tons is its largest tributary which rises at an elevation of 3,900 mtrs and joins Yamuna below Kalsi. At this place the Tons carries twice as much water as carried by the Yamuna. The river Giri which rises near Simla joins the Yamuna near Paonta. The total length of the Yamuna from Yamnotri to its confluence at Allahabad with Ganga is 1,376 kms.

*Ramganga* : The Ramganga is major tributary of the Ganga which rises in Garhwal at an altitude of 3,110 mtrs. It debouches in the plain tract at Kalagarh and after traversing a total length of about 596 kms it joins the Ganga at Kannauj. The Aril, the Gargan, the Khoh, the Kosi and the Deoha are its important effluents.

*Gomti* : The river Gomti rises at a very low altitude of about 200 mtrs, only about 3 kms east of Pilibhit town. The interfluvium between Ramganga and Ghaghra is mainly drained by the Gomti. The Barna, the Chuha, the Gachai, the Jomkai and the Sai are its important tributaries. Lucknow, the Capital of Uttar Pradesh, is located on the bank of Gomti. The length of its course is about 940 kms and it joins the Ganga a bit ahead of Varanasi.

*Ghaghra* : The Manchu and Karnali in Nepal is known as Ghaghra in Uttar Pradesh. The river rises near Lake Mansarovar. The Sarda or Chauka is its important tributary. Sarju is another important tributary on the bank of which is situated Ayodhya, once the capital of Lord Rama's kingdom. The stream is notorious for its almost annual flooding of Azamgarh and Ballia districts,

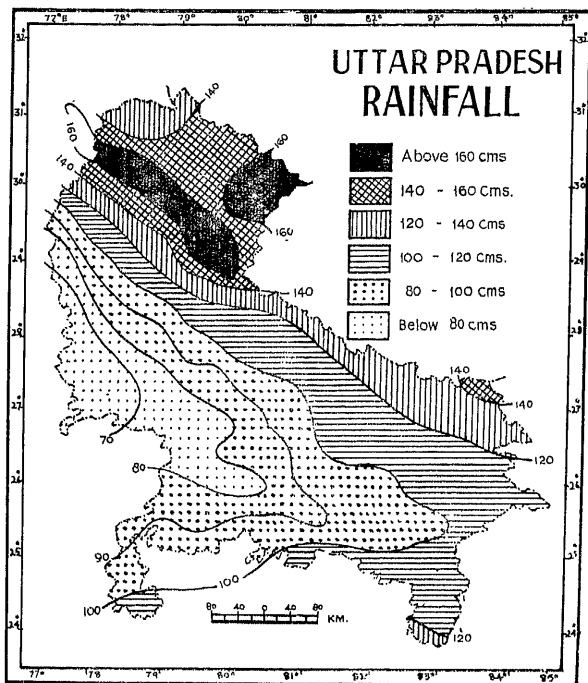
Rapti and Little Gandak are other tributaries of which the former spills and causes heavy flooding in the eastern districts of Uttar Pradesh. The Ghaghra joins the Ganga a little downstream of Chapra town in Bihar. This river traverses a course of about 1080 kms.

The Chambal, the Betwa and the Ken are other streams which join the second mighty river of this State the Yamuna in Uttar Pradesh. The Chambal rises in Vindhyan ranges and traverses for about 965 kms before joining the Yamuna near Etawah. Flowing through the fertile Malwa tract the river enters a 96-km long gorge at Chaurasigarh. "As the river flows much below the banks and due to poor rainfall, severe erosion has occurred over centuries and numerous deep ravines have been formed in Chambal valley."<sup>17</sup> Many of these ravines have also intruded in south-western Uttar Pradesh. Sindh, Parvati, Kunwari, and Pahuj are the important effluents of the Chambal. The Chambal which carries a considerable volume of water during monsoons is reduced to merely a trickle in dry months. The Betwa has its source in the Bhopal district of Madhya Pradesh. It runs for about 590 kms before it joins the Yamuna near Hamirpur town of Uttar Pradesh. It courses through a distance of about 360-km before it joins the Yamuna near Chilla in Uttar Pradesh.

### **Climate**

Climate, an important and vital organ of physical environment, controls soils, natural vegetation, animal life and human activities. On the whole, the climate of Uttar Pradesh is of tropical monsoon type with the exception of the northern mountainous zone where the element of increasing altitude renders the climate of temperate type. Apparently, the region is transitional in nature between the dry Punjab-Haryana tract and the humid Middle Ganga plain. The average weather conditions that emerge out of the combination of various climatic elements lead to the recognition of four well marked seasons. These four seasons are the Hot Summer, the Wet Summer (Chaumasa), the pre-Winter transitional season, and the Winter.

There is a gradual rise in temperature from mid-February onwards and it starts increasing rapidly (5°C) by March end and continues through May to mid-June. Unless the rapidly increasing temperatures are checked by the incursion of humid easterlies an average temperature of about 40°C prevails in most of the plain

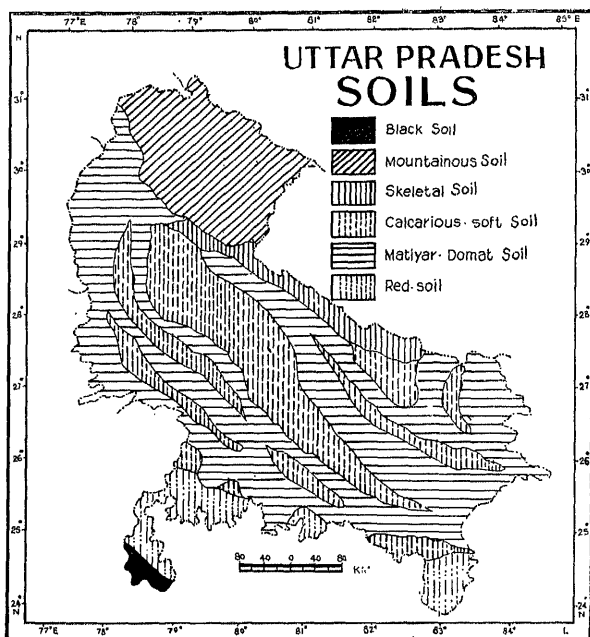


region. The hot and dry westerlies locally termed as *loo*, and blowing from Punjab-Haryana tract further aggravate the condition in want of sufficient relative humidity. Places like Gonda, Meerut and Bareilly experience comparatively lower temperatures because of their nearness to the Himalaya. The *loo*, relative humidity and the occurrence of heat waves sometimes accentuate the temperature conditions. Agra experienced 48.3°C (June 2, 1869) and Gonda had maximum temperature of 49.9°C (May 8, 1958). Pre-monsoon showers are sufficiently meagre and add only 1 per cent to the annual amount of rainfall at Bareilly and 5 per cent at Bahraich.

In the State as a whole the mean annual temperature ranges between 25°C to 28°C but in the foothills it falls down to about 12.9°C. The temperature does not show appreciable change south of the 25°C isotherm (passing through Aligarh, Bahraich and Gorakhpur) except of Jhansi. On the other hand the temperature decreases with height north of this isotherm. The mean annual minimum temperature varies between 15.5°C and 20.5°C but in the foothill areas the temperature is recorded at 10°C only. The isotherm of 18°C again bisects the plain tract into two zones. The temperature north of this isotherm decreases with increase in altitude whereas in the southern part no major deviations are recorded.

By mid-June the relative humidity starts increasing and it reaches a maximum of about 70 per cent in July-August. About 85.90 per cent of the annual rainfall of the plain tract is received from summer monsoons during the four months (Chamasa) of June to September. The amount of rainfall, however, decreases from west to east and north to south. The trend of the isohyets is observed from north-west to south-east with angular formations. During these four months with high humidity and high temperature the weather becomes sultry and oppressive and more so in the eastern and southern sections of the State. Occasionally, when Bay monsoon currents weaken the same are revitalised by the Arabian currents. The agricultural operations, now to a larger extent determined by canal waters, are still dependent on the onset, withdrawal, breaks and nature of showers.

By the month of October the summer rainfall actively comes to an end and a sudden fall (4°C) in atmospheric temperature is recorded. During the transitional months of October and November the relative humidity is at the lowest ebb. Soon after, the winter sets in with a further fall in temperature. By the end of November the temperature comes down to 20°C and further falls to 15°C in December and January. The mountainous parts, how-



ever, record an average temperature of  $4^{\circ}\text{C}$ . The blowing of westerlies, onset of western depressions, accompanied drizzle form rainfall and resultant cold wave bring appreciable falls in winter temperatures. Some places have been recording below freezing (Roorkee— $2.2^{\circ}\text{C}$  on February 2, 1905 and Agra— $2.2^{\circ}\text{C}$  on January 16, 1935) point temperatures. The incidence of winter rainfall in Uttar Pradesh is less than in the Punjab-Haryana tract but more than in the eastern India. About 5 per cent of the annual precipitation of Uttar Pradesh is received during winters. Thus the monotony of the winter season is broken by western disturbances. Though the amount of winter rainfall is quite meagre, with a lesser rate of evapo-transpiration because of low temperature and dampness of the atmosphere even this amount is quite effective and beneficial to rabi crops. The average annual rainfall of the plain tract of the State varies from 40 cms to 200 cms. The Tarai area gets about 120 cms, the eastern part of the Pradesh gets 100 to 200 cms, the western part gets 60 to 100 cms and the plateau area receives 100 to 120 cms of rainfall. The highest amount of rainfall in the mountainous area is recorded at Nainital (269 cms) and Mussoorie (253.7 cms) while Gorakhpur (184.7 cms) is the rainiest place on the plain. The minimum amount of annual rainfall (54.4 cms) is recorded at Mathura.

The Himalayan region of Uttar Pradesh deserves a separate mention in this regard here. Because of complicated relief micro-climatic conditions are observed. During summer when valley bottoms experience steamy and sweltering heat the great ranges bear some of the highest snowfields in the world. Valley winds and valley fogs are common climatic features in summer. The rainfall is related to altitude and aspect of the ranges. The rainfall is copious on these hills and averages between 140 cms to 300 cms annually. The winter depressions, on the other hand, cause three to five metres of rainfall from November to May.

### **Flora and Fauna**

Centuries ago the State of Uttar Pradesh covered with primeval forests was known as Vansudha, i.e., abode of forests. The Naimasharanya and Khandaw throw sufficient light on the occurrence of vast and thick forests in ancient times. About three millennia of human occupance made the forests yield to plough and clear more and more land for cultivating foodgrains to feed the multiplying numbers of human beings who, on the other hand, were changing from nomadism to cultivation. Being totally ignorant of the functions and effects of forests on soil, climate and

human life the man soon upset the much needed balance between fields and forests. Now it is too late when man has realised the disastrous results of his reckless cutting of forests and destroying of the natural resources beneficial to him. Excessive, uncontrolled and overgrazing of forests and meadows and reckless and unscientific felling of valuable trees have led to the problems of soil erosion by water, soil desiccation by winds, waterlogging by floods and silting of river courses which, in the wake of devastating floods, resulted in huge loss of human life and property.

At present an area of 50,125 sq/kms is covered with forests which account for about 17.03 per cent of the total area of the State. This forest coverage is much below the target set by our National Forest Policy. In accordance with this policy, 33.3 per cent of the total land of State should be covered with forests. The details of the policy reveal that 60 per cent of the mountainous tract and 20 per cent of the plain region should be under forests. Forests are a very useful organ of economy. Besides supplying fuel, timber and raw material to forest based industries the forests, by way of regulating water regime, help in the conservation of soils and their fertility. The organic matter added by the forests to soil adds humus to the fertility of mother earth and also enhances the water retaining capacity of the soil. The forest belts act as barriers against wind erosion, desiccation and onward march of sands by wind. Last, but not the least, besides subsidizing the income of a farmer from vocations scientifically based on forests the verdant forests leave a beneficial imprint on agriculture and a salubrious influence on the climate.

The distribution of forests in Uttar Pradesh is not only uneven but its quality is also poor. Only 47 per cent of the mountainous area and about 3 per cent of the plain tracts is under forests. "It is a very significant fact that of the 54 districts in the State, as many as 34 are without forests and in the remaining 20, the distribution is not only haphazard but also uneconomic. The three districts of the far-eastern portion of the state, i.e., Jaunpur, Ghazipur and Ballia, have hardly any forest worth the name. So also in the central part of the Gangetic plain, most districts show less than two per cent of forest land, which is a very low figure compared with 20 per cent, as the adopted optimum in the national forest policy."<sup>18</sup> The present per capita forested area comes to about 0.002 hectare and it is bound to go down with increasing human numbers and shrinking forest acreage.

A wide spatial and special variation of forests is observed in

Uttar Pradesh. Right from the coniferous forests of the glaciated regions of the north-western part to deciduous and scrub like forests of Bundelkhand and Vindhyaachal about two thousand varieties of trees have been found. Only in the Ganga plain grasses of 220 varieties have been studied. Apart from these trees and grasses many medicinal herbs are also found within the frontiers of the State. Broadly speaking, coniferous, tropical moist deciduous, tropical wet and sub-tropical dry forests are found in the State. The coniferous forests are limited to the lofty, cool and glacier affected areas receiving also heavy rainfall. Pine, Fir, Cypress, Deodar and Kail are the chief types of trees found in this belt. Near the snowline betul and rhododendron predominate. The tropical moist deciduous forests are confined to the Tarai and Bhabhar areas. Sal, sen, tun, haldu, cashewnut and semal are found in Tarai and Bhabhar tracts. Tarai sal is, however, poorer than the Bhabhar sal. Tall grasses like elephant grass, munj and kans also grow in the Tarai area. In the plain tract trees like amaltas, khirni, goldmohar, kadamb, kachnar, maulsiri, mango, iron wood, jamun, mahua, imli and neem are found. In the sub-tropical dry area xerophytic plants like babul, khair, semal and sheesham are found.

To conform with the requirements laid down under the national forest policy the government are going ahead with the programmes of increasing forest coverage, the concrete results of which cannot be quoted with certainty. Trees of economic and industrial importance, quick maturing species of trees, trees yielding fuel are being planted in many areas apart from the tree plantations carried on along the roadsides and banks of the streams and rivulets. According to the statistics available the State government spent an amount of Rs. 1,417.35 lakhs on reforestation and forest improvement projects in 1974-75 compared to only Rs. 694.42 lakhs spent during the year 1968-69. On the other hand, the Forest Department showed a net profit of Rs. 2,363.92 lakhs in 1974-75 as compared to the profit of Rs. 1214.11 lakhs in 1968-69. It sounds as if the Department is concentrating its aims and energies only on the swelling of profits and the real work achieved in the field of reforestation and allied activities seems to a secondary concern.

With regard to the fauna found in the forests of Uttar Pradesh yak, fox, jackal, lion, tiger, deer, bear, etc. are found in the mountainous forests of the State. Earlier, there was no ban on the killing of forest animals but now under the new policy with a view to preserve faunal wealth stringent restrictions have been imposed on shooting and many deer parks and zoological parks are being developed and maintained at some stations.

**Soils**

Soil is a natural medium which, through its nutrient constituents, supports and sustains plant growth on the surface of the earth. A ceaseless and perpetual process in the form of rock weathering, decay of animal and vegetal-cover, along with moisture, leads to the formation of soils. Climate, and particularly precipitation, is responsible for effecting changes in soil structure. With the exception of mountainous soils found in the hilly parts the alluvial soils with different variants are found in other parts of the State.

On the whole the soils show a heavier content from north-west to south-east. In areas affected by aridity (Agra, Mathura, Aligarh and Meerut) patches of alkaline and wind borne sand covered alluvium is commonly found. In the eastern flood prone area the low lying places are no doubt damaged by floods almost every year, yet, the fine silt deposited here enhances the fertility of the soil. On the interfluvies lying on higher areas old alluvium, commonly known as bangar with yellowish hue and kankar deposits is found. The bangar patches which are sometimes affected by changes in courses of streams are, however, covered with newar alluvium. The newar alluvium, or khadar, is relatively rich in plant contents and is frequently found along the siltation tracts created in the flood plains. These soils are neutral to reactions and are quite poor in organic matters like phosphorus but are sandy to loamy in texture. Bangar soils are relatively more extensive in their spatial spread. Soluble salts and lime contents are quite low and show neutral to slightly acidic reaction except in low lying areas where the soils are liable to waterlogging. In the Ganga-Ghaghra Doab a large tract covering Sultanpur, Pratapgarh, Rae Bareilly, Lucknow, Hardoi and Saharanpur is infested with kallar. These *usar* or *reh* (salt impregnated) soils are waterlogged soils and are rendered infertile and unfit for cultivation. In areas of higher water table, copious rainfall and excessive canal irrigation the efflorescence of sodium carbonate and sulphate is caused through capillary action. The *bhurs* or sandy shoals cause another variant in soils along the Ramganga tract and a limited part along the Ganga. But this soil can economically be worked with canal irrigation.

The bhabhar (porous) and Tarai tracts are covered with entirely different soils. The Tarai part is overlain with rich clayey soils with contents of rich humus, moisture and sand whereas the bhabhar area is covered with gravel infested, highly porous, aerated and moisture retaining soils. Both these parts are thickly forested and also contain marshy and swampy patches. Deforestation of the Tarai tract, already in progress, is bound to bring about many far

reaching changes in the soil texture and humus content. Both Tarai and Bhabhar are forest covered and malarial. The increasing population, however, has led to increasing colonization consequent upon strict anti-malarial measures in this tract. Rice, maize, oilseeds and even jute are being grown in the reclaimed tracts. Though there is little of canal irrigation in this area yet some really large government farms have been set up in this tract.

The archean rocks of Bundelkhand have weathered into red soils. The red colour is more due to the diffusion of iron contents found in higher proportions in these rocks. On the uplands the soils are poor and gravelly light coloured whereas in the valleys and plain patches fertile, deep and dark soils are found. Generally deficient in nitrogen, humus and phosphorus these red soils contain higher contents of alkali.

Soils of the Himalayan region do not form a compact block. In texture, colour humus, mineral contents and other lithological and ecological conditions the soils differ from valley to valley and slope to slope. In upper reaches the soils are, however, fluvioglacial in origin. On talus fans and flat terraces silty to clayey loams are found. Brown forest soils are widely found in many parts of the region. On forest margins (*Katil*) the poor soils are extremely immature and stony. On hill sides (*Upraon*) gravelly and sandy loam soils are found. On the flat valley bottoms (*Talaon*) brown soils with clayey texture are found.

"The classification of soils as recognized by the agricultural community, is sand (bhur or balu) loam (dumat, doras or rausli) and clay (matiyar), each differing from one another in the size of the component particles. A light loam which spreads over large areas is shown as pilia or pilota, whereas the stiffest cultivable clays, suitable only for inferior rice, have various local names."<sup>19</sup>

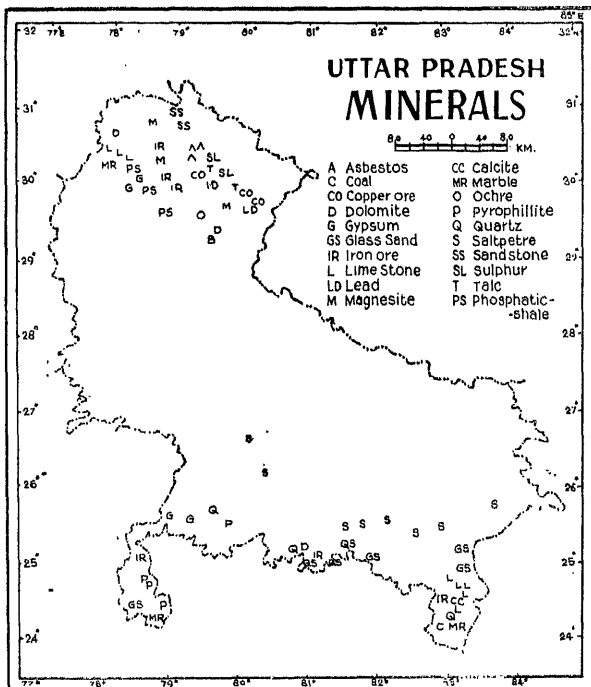
"Bhur is a generic term for patches of sandy soil, in places sufficiently extensive to form low but undulating sandy uplands. The Bhur proper is a belt on the east bank of the Ganga in the Moradabad and Bijnore districts : generally, rather arid but water-logged in the depressions, especially in wet years, it was until recently a negative tract, but most of it has been reclaimed by Tubewells."<sup>20</sup>

### Mineral Wealth

The populous State of Uttar Pradesh is very unfortunate in the

<sup>19</sup> *Ibid.*, p. 15.

<sup>20</sup> Spate, O.H.K., and Learmonth, A.T.A., *India and Pakistan*, London, 1972, p. 549,



field of mineral resources. In an otherwise highly gifted area, in mineral resources endowment nature has been not only niggardly but cruel to a great extent. The mineral veins are generally found in highly metamorphosed rocks but a major portion of Uttar Pradesh is composed of alluvium which totally lacks in the veins containing minerals. Minerals found in Uttar Pradesh are found either in the northern Himalayan region (which has so far quite unsufficiently been explored and surveyed) and plateau fringes jetting in south-western and south-eastern patches of the State. Limestone, silica, phosphatic shale and magnesite are important minerals of the State. Besides, deposits of pyrophyllite, marl, fire-clay, talc, asbestos, gypsum, graphite, sulphur, lead, zinc, copper, coal gold and iron ore have also been located in insignificant quantities. There is also a possibility of finding mineral oil in the State. On the whole the total value of mineral production in the State accounts for only 1% of the all-India mineral production.

Next to Andhra Pradesh Uttar Pradesh is the second largest producer of limestone in the country. The cement plant at Churk uses the limestone mined in the State. Dehra Dun, Tehri Garhwal, Almora, Pithoragarh and Mirzapur districts are the limestone mining areas of the State. However, limestone escarpment in the Ghaggar valley near Markundi (Mirzapur), Dehra Dun-Mussoorie block and Nilkantha tract of Tehri Garhwal are the huge reserves of limestone in the State. To meet the demands of sugar and paper mills limestone reserves of the Dehra Dun-Mussoorie block are being used extensively. In the field of Silica Sand production Uttar Pradesh is second to none in our country. The State produces about 15 per cent of the glass of the country and for glass manufacturing state mined silica sand is used. Glass production is expected to rise at a fast rate and it is estimated that the State would continue to meet about 3/4th of the country's demand for silica sand. Allahabad, Banda and Varanasi districts have huge and extensive deposits of friable quartzite suitable for glass manufacturing. Magnesite, which is used as a refractory material in iron and steel industry occurs widely in Almora, Pithoragarh and Chamoli districts. Dewaldhar and Bagheshwar are the richest magnesite deposits. Clay is found in Banda and Mirzapur districts and is used in the ceramic factories located at Agra and Khurja. Fireclay deposits have been located in Basti district and south-western parts of Mirzapur district. Phosphatic shale or rock phosphate is found in Dehra Dun and Garhwal districts. Because of its lower content of Phosphoric Acid it was earlier ignored by fertilizer manufacturers, but now, to meet the ever increasing demand for chemical fertilizer, the deposits are likely to be fully utilized. Kumaon and Garhwal

districts are producers of copper and lead ores. The copper-lead belt runs from the Kali stream and continues to Tehri Garhwal and Dehra Dun districts. Pindi (Tehri Garhwal), Shishakhari (Pithoragarh) and Gwar (Chamoli) have shown wide occurrences of copper-lead carrying veins. Poor quality of iron ore has been located in Kunwar (Mirzapur), Ramgarh and Kaladunghi (Nainital) and several parts of Jhansi district so far it is uneconomical to work out these deposits. The extension of Singrauli (Madhya Pradesh) coal-field jets into the Kota area of Mirzapur district. It is likely to be utilized for developing motive power for this area.

Dolomite (Mirzapur, Banda, Tehri Garhwal, Dehra Dun, Almora), Gypsum (Dehra Dun, Tehri Garhwal, Nainital, Hamirpur and Jhansi), Marble (Dehra Dun, Tehri Garhwal and Mirzapur), Diabase and pyrophyllite (Jhansi, Lalitpur, Hamirpur), Bauxite (Banda district's Karvi tahsil), Mica (Garhwal), Edolomite (Mirzapur), Byrite (Almora and Tehri Garhwal), Asbestos (Chamoli), radioactive elements like Uranium (Lalitpur, Chamoli and Garhwal), Gold (Bijnore), Pheladsparg (Jhansi), Antimony (Chamoli), Arsenic (Garhwal) and Graphite (Almora) are the other unexploited mineral deposits of the State.

The Vindhyan sandstone, sand, kankar, reh and sheera like building materials are mined in many parts of the State. Banda, Agra, Mirzapur and Varanasi are the leading producers of the finest quality of building material. Extensive deposits of clay used for brick manufacturing are found all over the State. The State of Uttar Pradesh has the largest number of brick-kiln plants.

The State has at present granted 215 mining licences under which limestone, dolomite, marble, pyrophyllite, diaspore, magnesite, soapstone, bauxite, glass sand and gypsum are mined but it is a hard fact that illegal mining continues in some parts of the State. Though some industries based on these minerals have already been started and there are chances of initiating some more ore based factories, yet the scope for establishment of mineral based industries is extremely limited in Uttar Pradesh. Mostly manual labour is used even for operating the ore mines. Because of the lack of industries due to want of the infrastructure needed for the establishment of mineral based factories many mineral ores are exported to other States. During the year 1974-75 the State Government earned a mineral royalty of Rs. 87,42,716.41 and if the royalty obtained from brick-kilns is also included the figure shoots up to Rs. 150 lakhs,

## *Irrigation and Power*

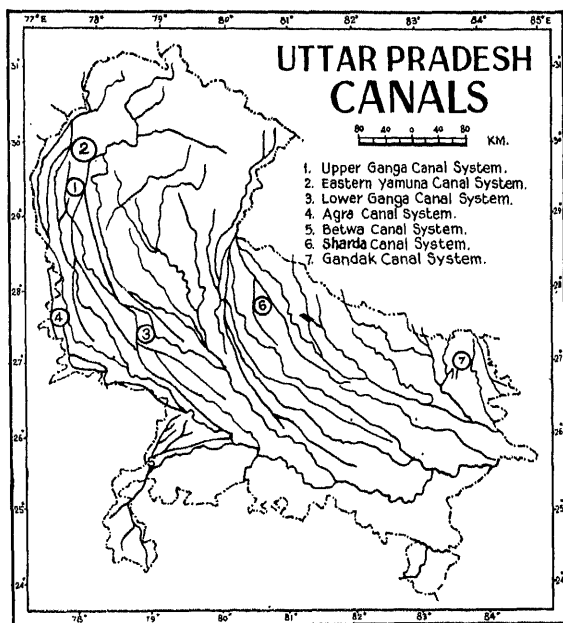
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As elsewhere in India successful agriculture is not possible in Uttar Pradesh because of the uncertainty and truancy of rainfall. "Since the rainfall is concentrated in a few months during the year, it makes it necessary to provide irrigation facilities in most parts of the State, particularly where rainfall is low. Both in view of the terrain and the available potential for irrigation, medium irrigation works should be developed in the Bundelkhand region and minor irrigation works, particularly within the eastern region."<sup>1</sup> The uncertainty of rainfall with regard to time, space and amount, the need to check the droughts and consequent famines, to tide over the food problem, to raise the living standards of farmers and to meet the special requirements of some crops are some of the reasons which call for provision of adequate irrigation facilities in Uttar Pradesh. On the other hand, level land with a gradual gradient, soft alluvium soils, perennial rivers fertility of the soil, high water table in many parts, cheap abundant labour, etc., are the favourable factors that have helped in the development of different means of irrigation in Uttar Pradesh. Irrigation, on the one hand, has turned

1 *Techno-Economic Survey of Uttar Pradesh*, New Delhi, 1965, p. 4.

some arid lands into lush green fields, has increased the yield and production of many crops, has allowed two to three crops from the same fields in the State, has permitted rotation of crops, has increased the government revenue and has also created a safeguard against farmers but it is not a single-edged sword. Many disadvantages which, however, can be set aside scientifically and tactfully, have also been the consequences of irrigation. The menace of waterlogging, spread of alkaline substances in many patches, unwanted rise of water table in many parts, floods and diseases like malaria due to breach of canal sides, misuse of water resources and canal feuds are some of the unhappy corollaries to irrigation in the State. On the whole, advantages accruing from irrigation are much more than the disadvantages, which are now slowly and gradually being removed. "Although irrigation is not such a *sine qua non* of agriculture as it is in most of the Indus Plains, the actual cultivated area, and still more the security of agriculture and the proportion under cash crops, has been generally increased in the last few decades by irrigation."<sup>2</sup>

We find many references to the practice of irrigation in Vedic and other ancient literature most of which was composed in the then verdant forests covering the landscape and along the enchanting river courses. The word *avta* in Rigveda refers to the well, meant for irrigating fields. The great ancient economist and scholar-statesman Chanakya refers to well irrigation in his compositions. In Yajurveda the word *Sarsi* refers to the tanks used for watering the fields. Similarly Chanakya in his *Arthashastra* refers to tank irrigation prevalent in India much before the advent of the Christian era. With regard to canals (in the modern sense) no reference is available in our ancient literature but the ancient and original tribes like Kinners, Khasas and Gandharvas had a system of zig zag irrigating channels in their hilly abodes taken out of rivers. Such irrigating channels on Kuhals are still prevalent in our hilly parts especially Kangra valley, Kulu, Kinnaur, Uttar Khand, etc. The canals are the contribution of Muslim rulers in India. It was Feroze Shah Tughlaq who got a canal excavated from the left bank of Yamuna and took it to his newly built strategic town of Firoze-e-Hissar (now only Hissar) which then suffered from an acute shortage of water. Similarly, the pleasure and beauty loving Mughal King, Shahjahan, brought water from the Yamuna by way of a canal to his capital Shahjahanbad to keep it the layout of gardens ever green. The most important canal works were, however, initiated during the British regime in India.



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The major part of the irrigated acreage of our country is found in Uttar Pradesh. The state irrigates about 31 per cent of its gross cultivated area which amounts to 1/5th of the total irrigated area of India. Canals, wells, tubewells and tanks are the important modes of irrigation in this field. There is wide variation in the sub-regional and district level percentage of irrigated areas. The greater proportion of irrigated area is found in the upper and middle parts of the Ganga-Yamuna Doab downwards to Farrukhabad (Muzaffarnagar 59 per cent, Meerut 69 per cent, Bulandshahr 61 per cent) and Etawah. In the lower Doab irrigation becomes less significant (Kanpur 29.4 per cent, Fatehpur 26 per cent, Allahabad 23.2 per cent) as the amount of rainfall increases towards the eastern parts of the State. "The Rohilkhand and Awadh, on the other hand, mostly range between very poor to average in irrigational resources which is partly explained by their lesser irrigational needs."<sup>3</sup> In these tracts most of the districts irrigate less than 15 per cent of their cultivated land while the rest of the districts water their 15 to 30 per cent cultivated acreages. The higher amount of rainfall, lower temperature and, consequently, slow evapo-transpiration lead to lower needs of water in the cultivated tracts of Tarai. "Although surface wells, being cheap and handy, are the ubiquitous source of irrigation throughout the region, yet there are wide variations in the levels of dominance of various sources of irrigation in different sub-regions."<sup>4</sup> In general, 47 per cent of the total watered area is irrigated by wells and tubewells, 49 per cent by canals and 9 per cent by water reservoirs like tanks and 4 per cent by *jhils* and *tals* and other resources in the State.

Canals are the most important mode of irrigation in the upper Doab where mainly more than half the irrigated acreage is watered by canals. In the lower Doab the percentage varies from 25 to 50 per cent. The highest percentage is, however, found in the eastern Central Doab where the districts of Kanpur and Etawah have 86 per cent and 82 per cent of their irrigated area watered by canals respectively. The canals assume greater significance in Rohilkhand where, with the exception of Bijnore, Budayun and Moradabad districts the canal irrigation covers 50 to 90 per cent of the irrigated area. In fact, in Western Rohilkhand the wells and tubewells gain dominance on the Bhur tract where Bijnore (74 per cent of the total irrigated area), Budayun (91 per cent) and Moradabad (92.1 per cent) districts have their largest irrigated

3 Singh, U. and Verma, R.V., *op. cit.*, p. 162.

4 *Ibid.*, p. 163.

acreage watered by wells and tubewells. In the Awadh plain the canals are an important source of irrigation, irrigating about 59 per cent of the total watered area.

### Canals

As already stated, about two-fifth of the total irrigated area of the State is watered by canals. The excavation of canals in the State is possible because of a large number of perennial streams, soft sedimentary alluvium and a gradual slope of the plain tract. By the end of 1974-75 the progress of irrigated acreage is revealed by the following table :

<i>Period</i>	<i>Length of Canals</i>	<i>Number of Tubewells</i>	<i>Irrigated Acreage</i>
1947	28,883 kms	2,009	27.5 lakh hectares
By the end of I Plan	35,604 kms	4,515	37.6 lakh hectares
By the end of II Plan	41,706 kms	6,663	44.6 lakh hectares
By the end of III Plan	45,985 kms	8,226	51.7 lakh hectares
By the end of IV Plan	49,450 kms	12,838	65.1 lakh hectares
By the end of 1974-75	Not available	13,749	69.15 lakh hectares

It is expected that about 33 lakh hectares of cultivable land would be provided with irrigation facilities by way of canals to be taken out of the many multipurpose projects nearing completion and the feat would cost about Rs. 600 crores on the basis of 1973 prices.

*The Upper Ganga Canal* : The survey work for this canal was completed in the year 1836 but the excavation work started six years later, in 1842, and the canal was thrown open for use in 1859. The canal has been taken out from the right bank of the Ganga at Jawalapur near Haridwar. The engineers have exhibited such an excellent skill in the completion of this canal that this wonderful feat amazes the human mind. At the Ranipur level crossing, Ghanauri, the canal has been made to cross over the Solani stream whereas at another place the canal crosses underneath the stream. Here, a 60-mtr wide and 3-mtr deep underground channel allows the canal water to pass underneath the stream. Deoband, Anupshahr and Hathras are its three important branches. Including the length of all its tributaries the canal spreads a net of about 5,900 kms. The Upper Ganga-Yamuna Doab which now receives irrigation facilities through this canal and is an important agricultural tract of the State was once a famine stricken region. The canal system

irrigates about 7.2 lakh hectares of land in the districts of Sharanpur, Muzaffarnagar, Bulandshahr, Aligarh, Mathura, Etah, Etawah, Kanpur, Mainpuri, Farrukhabad and Fatehgarh.

Between Aligarh and Haridwar the canal course gives a natural gradient of 45 mtrs. This slope has been broken into 13 vertical waterfalls of 2.4 to 3.6 mtrs. Out of thirteen natural falls seven have been utilized to generate hydro-electrical power. Thus the water power generated at these seven stations, namely, Bahadurabad, Miraganji, Chitaura, Salawa, Bhola, Palra and Sumera runs into a transmission of 3000 kms and is used for providing power to tubewells as well as industrial and residential purposes. However, most of this power is utilized to generate about 2,050 tubewells under the Ganga Valley Tubewell Scheme. The tubewells provide irrigation facilities to the tracts of Bijore, Moradabad and adjacent tracts of western Rohilkhand which are otherwise not amenable to canal irrigation.

*The Lower Ganga Canal* : The Ganga receives many tributaries and effluents from both sides on its banks. Therefore, it was possible to take out another canal by erecting a dam at Narora (Bulandshahr) in the year 1872. Etawah, Kanpur and Fatehpur are its three main branches. The entire net of this canal system measures about 6,174 kms and it irrigates about 5 lakh hectares of land in the lower Doab region. The astonishing feat exhibited along the course of this canal is that it has been made to pass over the Kali stream at Nadrai by way of a 15 arch tunnel. The Etawah branch merges into the Upper Ganga Canal at Cosgunj and thereby renders more water to the Upper Ganga Canal for irrigating the land in the Kanpur district. The canal after some distance, again separates itself and runs further independently. The districts of Mainpuri, Farrukhabad, Etah, Fatehpur, Kanpur and Etawah receive irrigation waters from this canal.

*The Eastern Yamuna Canal* : The original Eastern Yamuna canal was got constructed by the Mughal emperor, Shahjahan. In the year 1830, however, the canal was improved upon by the East India Company. Taken out of the Yamuna river at Faizabad the canal rejoins the parental stream at Shahdara near Delhi. The entire length of this canal system is about 1,450 kms and it irrigates 1.6 lakh hectares of land in the districts of Meerut, Saharanpur and Muzaffarnagar lying in the Yamuna-Hindan tract.

"The Ganga and Yamuna have not such large mountain catchments as the Punjab rivers (except the Ravi) and occasionally shortages occur; these are being increasingly met by tubewell pump-

ing into the more distant tails. The Lower Ganga headworks contain a special passage to allow sufficient water always to pass through for Hindu ritual bathings.”<sup>5</sup>

*The Sharda Canal*: The Sharda river is known as Kalinadi in Nepal, but as, after leaving its mountainous tract, it enters Uttar Pradesh at Tanakpur, it is called Sharda river. Sharda has been quite notorious for its devastating floods in olden times. The area lying east of Puranpur in Pilibhit district is considerably low lying and because of this reason Sharda had been, in the past causing havoc in this area because of its floods. To save this area from the menace of floods and waterlogging as also to emancipate the agricultural economy of the Awadh plain it was decided to erect a dam at Banbasa on the Sharda stream. “In Oudh the most important work is the Sharda Canal, first mooted in 1870 but held up for decades by the short-sighted opposition of local landlords. A proposal to take Sharda water right over the Western Uttar Pradesh, however, not unnaturally produced a sudden change of front, and they then petitioned for the original project.”<sup>6</sup>

The work on the project started in 1920. Initially, the project was divided into two parts. The first part consisted of Sharda-Kichcha Canal aimed at providing irrigation facilities to Rohilkhand and the other, Sharda-Awadh Canal, for irrigating the Awadh tract. In 1926 both the phases were merged to form the Sharda Canal. In the year 1928 the canal system was thrown open to irrigate the parts of Pilibhit, Shahjahanpur, Hardoi, Lucknow, Unnao, Rae Bareilly, Kheri, Sultanpur and Sitapur districts. The water of Sharda river has been dammed by way of a barrage consisting of 34 gates. At its source the canal is 107 mtrs. wide and leaves with a load of 256 cubic metre (cumecs) per second. The project was extended and expanded in 1941 and now the net of this canal system consists of a length of 12,340 kms and it is not only the biggest canal system of our country but is counted among the largest canal patterns of the world. In the year 1955-56 further expansion was effected in this system to provide irrigation facilities to another acreage, rather hectarage, measuring 70 thousand hectares. Dava, Bisalpur, Nigohi, Khira, Hardoi, Pratapgarh and Daryabad are its main branches. Currently, the entire canal system irrigates about 4.8 lakh hectares of land in the Ganga-Ghaghra Doab, eastern Rohilkhand, Awadh plain and intrudes into Azamgarh.

5 Spate, O.H.K. and Learmonth, A.T.A., *op. cit.*, p. 551.

6 *Ibid.*, p. 551.

*Agra Canal* : The Agra canal has been taken out of Yamuna at Okhla near Delhi. The canal was completed in the year 1804. The canal, including its tributaries, has a length of about 1,694 kms. It irrigates the trans-Yamuna tracts of Mathura, Agra and Bharatpur (in Rajasthan).

*Betwa Canal* : Betwa is a tributary of the Yamuna joining it from the south. In the year 1976 the Betwa canal was taken out of this stream from Parichha a place at a distance of about 24 kms from Jhansi. This canal irrigates 1.5 lakh hectares of land located on the Bundelkhand plateau in the districts of Jhansi, Jalaun, Hamirpur and Banda.

*Ken Canal* : Ken is a southern tributary of Yamuna. A canal was taken out of this tributary at Panna. The canal has a length of about 640 kms in Banda and Chatrapur and irrigates about one lakh hectares of land in Banda district.

*Dhasan Canal* : Dhasan is also a southern tributary of Yamuna. It irrigates most parts of the Hamirpur district on the Bundelkhand plateau.

### **Multipurpose and other Irrigation Projects**

During our freedom struggle and especially during the last two decades of our fight the then British Government had realised the necessity of launching programmes aiming at emancipation of the rural masses so that they could be pacified and dissuaded from joining the freedom movement. The reality is that the British regime never initiated any economic, social or cultural programme with the sole motive of uplifting and helping the poor and down-trodden masses of India. Whatever programme they initiated had strategic reasons behind it. The construction of railway lines, the spread of roadways, generation of water power, excavation of canals, spread of education, etc., were all to benefit the British Government in India directly. But, indirectly, these measures proved to be of immense benefit to the Indian people also. By learning English many intellectuals came in closer contact with the democratic systems and freedom struggles going on elsewhere. The spread of means of transportation and communications brought the Indian people nearer and closer and allowed them to collectively think about their degraded lot. The economic steps made some people to extend funds to the movement. Had this not been the case India would have seen many Bhakras and Rihands completed

much earlier, especially when the ideas for such multifaceted projects had been floated by some kind hearted English gentlemen. Sir Louis Dane, the erstwhile Lieutenant Governor of Punjab, mooted the idea of constructing a dam at the Bhakra gorge in 1908. Similarly, Mr. G.S. Barlow, a British Engineer in India, floated a scheme of constructing a dam at Pipri on the Rihand stream in 1936-37 but actual work on these projects was started after we attained independence. Therefore, after partition when our leaders, economists and planners stood aghast and bewildered at the utter poverty, want and hunger of Indian masses, worst confounded by the vivisection of this great land of Rama, Krishna and Gautama, they had to seriously think about the plans, projects, schemes and steps which could accrue multifaceted benefits to our masses. Hence, multipurpose projects and River valley schemes emerged on the development and planning schedule of India.

*Rihand Multipurpose Project* : The Rihand stream is a tributary of the Sone river. Coming out of Madhya Pradesh the stream meets the Sone in the Mirzapur district of Uttar Pradesh. Like all other streams and effluents of this region, Rihand also played havoc with the life and property in this area during its floods which usually used to be of devastating dimensions. In the year 1936-37 Mr. G.S. Barlow, an Engineer in the Engineering Department of India, forwarded a proposal to dam the monstrous waters of Rihand at Pipri (Mirzapur district) to save large tracts from ruinous floods and, instead, use the dammed water for watering the fields, harnessing electricity and stepping up fishing. The Second World War and the indecisive attitude of the administrative hierarchy paid little attention to this proposal. However, in a bid to win people of this area over to their side the British initiated a survey work of this project in 1945. But actual work on this project was started only in 1952.

The Rihand passes through a granite gorge at Pipri in the Mirzapur district. Here, a cement and concrete dam 992 mtrs. long and 91-metre high, has been created. The reservoir so created is named Govind Ballabh Sagar. With an area of 466 sq. kms. the Govind Ballabh Sagar is the largest reservoir of the eastern hemisphere and can store 10.32 lakh hectare mtrs of water. It is a multipurpose project and benefits the States of Uttar Pradesh and Bihar. Besides irrigating about 6 lakh hectares of land in these States the five powerhouses built here are generating 50 thousand Kws of water power each. The reservoir also supplies drinking water to hundreds of villages in both the States. It is also being used for fish culture. Large tracts of land which were earlier arid and deser-

ted now present a verdure look. Similarly, many areas have been saved from floods, subsequent diseases, menaces of waterlogging and soil erosion. The project has also provided jobs to thousands of skilled and unskilled people. Apart from benefiting the peasantry and other sections of the society the project brings a gross revenue of about Rs. 6 crores to the State exchequer. Rihand was initially started as a water-power project aimed at supplying power to 5,000 tubewells.

The geologists are of the opinion that the Sone valley (*Sone* or *Swaran* meaning gold) has an appropriate name. The valley has reserves of caustic soda, acidic material, building stone, iron ore, mica ore, bauxite and coal deposits. The water power harnessed at this project, besides electrifying villages and generating tubewells, can play a vital role in the industrialization of this valley. Aluminium, cotton, paper, glass, textiles, matchboxes, fertilizers, cement and plastic manufacturing would get an impetus besides giving a spurt to the handicrafts, small scale and cottage industries. The electric grid of this scheme has ultimately to be linked with the Damodar grid system in the east and the Ganga grid system in the west. When all the canals and distributaries under this project are completed a link in between the Sone Valley and the Ganga Valley would automatically be established. This would also help in navigation between Rihand and Hugli and would save a lot of expenditure incurred especially on the transportation of bulky material. Similar to Mysore's Vrindavan Gardens a tourist and picnic spot has also been visualised and planned here. In the words of Pandit Jawahar Lal Nehru, like other new temples of India, Rihand, besides augmenting the production of foodgrains to the tune of 3 lakh metric tonnes, would extend innumerable benefits to the States of Uttar Pradesh, Bihar, Madhya Pradesh and the country at large.

*Mata Tila Project* : The Mata Tila barrage has been constructed on the Betwa stream at a distance of about 56 kms south of Jhansi town. A 714-m. long and 36-m. high reservoir has been created out of which Mandar and Gur Sarai canals have been taken. Since these canals pass through undulating topography and hard resistant rocks the excavation of these canals posed many problems, which were, however, overcome by the unparalleled determination and strong will of the people working at this site. At many places water has been made to pass through tunnels. The canals water the irrigated lands falling within Uttar Pradesh as well as Madhya Pradesh. Jhansi, Jalaun and Hamirpur districts of Uttar Pradesh are the greatest beneficiaries of these canals.

**Latifshah Reservoir :** A water reservoir was completed at Chakiya in the Varanasi district in 1918 and is called Latifshah reservoir. The reservoir can store 3.4 crore cubic mtrs. of water and feed a 104-km long canal which irrigates 10 thousand hectares of land in the Chakiya tract.

**Ahaura Barrage :** This barrage has been erected across the Garai rivulet located 1.5 kms south of Ahaura town in Mirzapur district. This effluent had earlier been causing havoc during its floods to an area of 77 sq. kms. Apart from saving this area from the menacing floods about 9 thousand hectares of cultivable land of Chunar tehsil (Mirzapur) and Chandauli tehsil (Varanasi) have started receiving the much needed waters for irrigational purposes.

**Ghaghar dam :** Ghaghar is a tributary of the Sone river in Mirzapur district. A dam has been built across the stream in the south-west of Robertsgunj. Out of this dam Ghaghar canal has been taken and it has two main branches, namely, Marihan and Ghorawal, which irrigate the plateau portions of Mirzapur.

**Nagwan and Khujri Barrages :** In the Mirzapur district a barrage on Karmnasa stream has been built at Nagwan. This place is at a distance of 130 kms south-east of Mirzapur town. The reservoir so created has a capacity of storing 6,400 hectare mtrs. of water and this water irrigates about 25 thousand hectares of land. Two small distributaries also lead water to Khujri and Harrai streams, called Upper Khujri barrage and Lower Khujri barrage. There is a barrage on the Harrai stream also at a distance of about 16 kms from Mirzapur. All these barrages would irrigate 8,300 hectares of land in Uttar Pradesh.

**Baraudha Reservoir :** A cement and concrete wall, 454 mtrs. long and 4 mtrs. high, has created a water reservoir at a distance of about 45 kms from Mirzapur. Water from this reservoir is being used for irrigating the adjacent agricultural land. It has also become a tourist and picnic resort.

**Sirsi Dam :** At a distance of about 50 kms from Allahabad an earth dam has been built to store water from the Sirsi waterfall. The reservoir so created covers an area of about 40 sq. kms and can store 15.4 lakh cubic mtrs. of water. About 41 thousand hectares of agricultural land are receiving irrigation facilities from this reservoir.

The Sirsi reservoir and Sirsi dam came under the Belan Canal System which contains a 747-mtr. long aqueduct, known as Tons Aqueduct, which is also the largest artificial aqueduct of India. This canal system irrigates about 41 lakh hectares of agricultural land in Belan, Tons and the Allahabad district.

**Chandraprabha Dam :** In Varanasi district a dam has been cons-

tructed on the Chandra Prabha river at a distance of about 20 kms from Chakiya. The dam is 152 mtrs. long and 20 mtrs. high and creates a reservoir which has a storage of about 225 crore cubic mtrs. of water. The area of Chakiya and Chandauli tehsils which do not fall within the realm of the Latifshah system are irrigated by the canals taken out of this reservoir, measuring about 9600 hectares. Prior to the erection of this dam about 8 thousand hectares of land in Baburi and Pachikhar tracts were badly affected by annual floods, are now being usefully cultivated to produce paddy. The reservoir is also being used for fish culture and also acts as a tourist resort.

*Naugarh barrage* : At a distance of about 100 kms from Varanasi a dam has been constructed across the Karmnasha stream in Ghazipur district. The reservoir contains about 32 crore cubic mtrs. of water which is being used to irrigate 24 thousands hectares of land in the Chandauli tehsil of Varanasi and 8 thousand hectares in the Jamuna tehsil of Ghazipur.

*Banganga Canal* : On the Nepal-Uttar Pradesh border a barrage has been created on the loop of Banganga stream at Shohratgarh. A five kms long canal has been taken out of this barrage which irrigates 2.8 hectares of land in the Basti district though its distributaries measure about 130 kms.

*Lalitpur Barrage* : In the Jhansi district a 3,355 mtrs. long and 18 mtrs. high dam has been built across the Shahzad stream, a tributary of Betwa at Lalitpur. The water reservoir is known as Govind Sagar. Water from this reservoir is currently irrigating about 17.5 thousand hectares of land.

*Saprar Barrage* : At a distance of about 7.3 kms from the small town of Maooranipur (Jhansi) is located a village, Karauchha, in the southern direction. Here, a dam 16-mtr. high, has been erected to store 480 cubic mtrs. of water. The canal taken out of this reservoir irrigates about 16 thousand hectares of land lying on the interfluvium between Lakheri and Dhasan streams (Jhansi) and some parts of the Hamirpur district.

*Arjun Barrage* : On the Arjun stream a barrage has been created at Charkhari village of the Hamirpur district. The 5000 mtrs. by 25 mtrs. water reservoir has a storage capacity of 203 lakh cubic mtrs. A 169-km long canal system taken out of this water body irrigates about 10 thousand hectares of land in this district.

*Rangwan barrage* : On Banna, a tributary of Ken, a barrage has been erected in the Banda district. The dam has enhanced the water carrying capacity of the Ken Canal and this way about 38.5 thousand hectares of extra land of the Banda district gets irrigational facilities.

*Valmiki Reservoir* : It is an earthen barrage built in Karvi tehsil of the Banda district. The canals taken out of this reservoir are providing watering facilities to the interfluvies situated in between Godva-Ohan and Ohan-Gohanta rivulets.

*Jirgo Reservoir* : On the Jirgo stream an earthen barrage has been built in the Mirzapur district. This barrage is nearly 5 kms in length and its water irrigates about 26 thousand hectares of land in the districts of Varanasi, Ghazipur and Mirzapur.

*Meja Reservoir* : In the Mirzapur district another earthen barrage has been built across the Belan stream which has a storage capacity of about 1,100 cubic mtrs. The distributaries taken out of this water body are currently irrigating 28 thousand hectares of land in Allahabad and Mirzapur districts.

*Kalerai Lake* : The lake by an earthen barrage has been created in the Hamirpur district in a village named Kalerai. The storage capacity of this lake exceeds 1 crore cubic mtrs. and its distributaries are presently irrigating 2 thousand hectares of land in Hamirpur.

*Narayani Canal System* : Narayani is a tributary of the Gandak river. At some distance from the Nepalese border a canal from Narayani stream has been taken out which irrigates one lakh hectares of land in the Maharajganj tehsil of Gorakhpur and eight thousand hectares of land in the Hata tehsil of Deoria.

### **Wells, Tubewells and Tanks**

Not only canals but wells and tubewells are also a major source of irrigation in Uttar Pradesh. Soft alluvium and high water table are the favourable conditions for the spudding of wells. Wells extend certain benefits over canal irrigation. The problems of waterlogging and breaching are absent in well irrigation. Moreover, the well or a tubewell is the personal property of a peasant and he can use their water at his will. The largest number of wells and tubewells in India are found in Uttar Pradesh. They form a major source of irrigation in Upper Doab and Central and Western Rohilkhand. The number of wells and tubewells had crossed the 14-thousand mark by the end of 1976. Wells are spudded by farmers themselves at their convenience and at suitable points. Nearly half of the irrigated land in the State is commanded by wells and tubewells. In tubewells either the electric power or diesel power is used to lift the water. "A tubewell irrigates 70 to 80 times more land than a well and the cost of construction is only three times that of a well."<sup>7</sup> Considerable area of the southern part of

the State lying on the fringes of peninsular foreland is also watered through tanks and reservoirs. Many of the reservoirs have been described above. Tanks and lakes assume a greater importance as a source of irrigation in Awadh plain and about one sixth of the total irrigated acreage is irrigated by way of tanks and lakes.

### **New Achievements in the field of Irrigation**

During the years 1974-75 and 1975-76 many improvements were effected in the existing irrigation facilities and the total irrigation capacity of the State had been increased to 73.76 lakh hectares by the end of 1976. The barrage on Kosi has been completed and water thrown open for irrigation. The Ramganga project is nearing completion in all its phases. Three units of power generating plants are also nearing completion. The completion of 105-km. feeder canal of the Sharda system started giving water after the end of June, 1977. By this time the feeder canal has been completed upto Barabanki branch and this way irrigation facilities are being provided to an extra land measuring 1.23 lakh hectares of land. The Kishanpur Pump Canal was inaugurated in June 1975. Apart from this, the work on Asia's largest earth and store dam at Jamrani in Nainital is in progress. Plans are afoot to instal 7 thousand new tubewells during the current Plan period. These minor irrigation works include construction of Kuhals in the mountainous areas, minor irrigation works of Uttar Khand, construction of smaller water reservoirs in Mirzapur and Varanasi districts and the provision of supplying water to the tail-courses of canals. During the Plan period an additional irrigated acreage of 9.53 lakh hectares is expected to be added to the irrigation map of the State.

Floods have always been a grave problem in this State. The floods, besides causing incalculable damage to crops, lives and property, used to render many tracts unfit for cultivation due to soil erosion and waterlogging. The aim of the canal grid is also to save many areas from floods. During the years 1967-68 and 1968-69 about 22 thousand hectares of land was taken out of the clutches of floods. Earlier, during the Third Plan period an acreage of 56 thousand hectares was saved from this menace. In the Fourth Plan about 90 thousand hectares of land was provided protection against floods. Currently, attention is being paid to save Lucknow, Azamgarh, Chittauni (on the bank of Gandak) and the tract along the Ganga and Ghaghra rivers from the recurring menaces of floods and soil erosion.

To run the irrigation schemes effectively and scientifically it is essential to carry on research in this field. Therefore, the research

cell of the State's Irrigation Department has been strengthened and reorganised. Research is in progress on many irrigational, flood control and multipurpose schemes.

### **Power Development**

The first powerhouse in Uttar Pradesh was started by a private concern in 1903 at Mussoorie. Thereafter, within a decade and a half powerhouses came up at Kanpur (1906), Dehra Dun (1915), Lucknow (1916) and Allahabad (1916). To create a water power grid along the Upper Ganga Canal at seven natural falls along its course between Haridwar and Sumera a project was initiated in 1928. The purpose behind this project was to supply hydro-electrical power to the towns of Saharanpur, Muzaffarnagar, Meerut, Aligarh, Bullandshahr, Agra, Mathura, Etawah, Etah, Bareilly, Budayun, Bijnore and some parts of the national capital, Delhi. Out of the proposed seven powerhouses the three at Bhola, Palra and Bhadrabad were completed by the end of 1930. Meanwhile, powerhouses also came up at Nainital, Bareilly, Shahjahanpur, Gorakhpur, Padrauna, Varanasi, Jhansi, Agra and Mathura. By the end of 1937, besides completing four remaining powerhouses along the Upper Ganga Canal, another powerhouse at Sohawal near Faizabad also came up on the scene. The four powerhouses, along the Upper Ganga Canal were built at Chitaura, Salawa, Nirgajni and Sumera. The same year two thermal power plants were also installed at Harduaganj and Chandausi. To meet the exigencies diesel powerhouses of smaller dimensions were created at Aligarh, Moradabad, Meerut, Tundla, Saharanpur and Luxar. Before the break up of the Second World War twelve more power plants were installed, one each in Mirzapur, Jaunpur, Ghazipur, Azamgarh, Gonda, Bahraich, Balrampur, Nanapura, Pilibhit, Sitapur, Farrukhabad and Hardoi. After the War was over powerhouses at Almora, Halduani, Unnao and Barabanki were also completed.

By the year 1947 the State had not only government run powerhouses, but also privately owned and managed power plants. The installed capacity of all these plants amounted to 157.392 Mws. After Independence, many programmes aimed at socio-economic emancipation of the people were started and these measures put a very heavy pressure on the existing power generating capacity. To achieve good results in this direction serious efforts were made which increased the generating capacity to 178.54 Mws. in 1951. In the First Plan Period work was initiated on 28 generating plants and by the end of the Plan the installed capacity increased to

287.880 Mws. and the same reached a level of 370.17 Mws. by the end of the Third Plan. During the First Plan period, average power generation was 475.176 lakh Kw. hrs. and the same increased to 913.447 lakh Kw. hrs. In the year 1960-61 about 5.661 lakh Mw. hrs. of power was imported from the neighbouring States. By the end of the First Plan period the per capita power consumption in the State was 5.58 Kw. hrs. and the same increased to 13.25 Kw. hrs. by the end of the Second Plan period.

In the year 1955-56 the total length of transmitting lines was 16,000 circuit kms. and it increased to 25,900 circuit kms. During these years the number of power run tubewells increased from 4,084 to 6,070. During the second plan period the electric current was provided to 3,566 tubewells, 210 towns and 1,082 small towns. On account of the foreign exchange crisis, shortage of steel called for the spread of transmitting lines and the shortage of technically trained and skilled personnel the work of power development and electrification marched at a very sluggish rate. However, during the following Plan periods the work was geared up and successful results achieved. Still, by the end of the Fourth Plan period the State suffered power shortage of 110 Mws. By the year 1973 the per capita consumption of electricity in the State was approximately 58 units as against the all-India average of 90 units. "Out of the 112,624 villages of Uttar Pradesh by the end of Second Five Year Plan, the fully electrified ones were only 211."<sup>8</sup>

During the Fourth Five Year Plan period work was started and partially completed on the Yamuna Hydro-electric Project (I stage), Ovara Hydro-electric Project and Ovara Thermal Plant (IV stage). Under the extension programme of the Ovara Thermal Project (I stage) another 100-Mw. plant was installed. Work was in an advanced stage on the Yamuna Hydro Project (II and IV stages), Ovara Thermal Power Extension Programme (I and II stages), Ramganga Hydro Power Project, Maneri Bhali Water Power Scheme (I stage), Haridwar (I and IV stages) and Panki Thermal Power Extension Programmes, Tehri Barrage, Maneri Bhali (II stage) and Rishikesh-Haridwar projects. For the first time in the country, manufacture of a 400-Kw line was started in the State.

Under the village electrification scheme 101 villages were electrified in the year 1975 and this brought the total number of electrified villages to 30,899 meaning thereby that about 30 per cent of the villages of the State had been electrified. During the Fifth Five Year Plan it is proposed to bring the per capita power consumption to the national level. To overcome the present power shortage and

to achieve the earlier stated aim, a plan costing Rs. 1,310 crores has been sent to the Central Government for perusal and permission. It is estimated that an extra generating capacity of 2,432 Mws. would be installed during the Plan period.

It is discouraging to note that while the neighbouring State of Haryana has taken electricity to each and every village in its territory Uttar Pradesh has electrified only one third of its villages. Haryana with no perennial streams has achieved this aim and there is no reason that a State like Uttar Pradesh with numerous perennial streams, their tributaries and effluents should lag behind in this respect. The State besides having a giant multipurpose project at Rihand, has many dams and barrages to its credit. Hydroelectricity once developed and transmitted proves to be the cheapest means of power and can work wonders for the rural uplift of our countryside. Many agricultural operations as also those connected with animal husbandry, food processing, cane crushing and handicrafts can be cheaply and efficiently run in a clean sootless atmosphere. In this regard not only Uttar Pradesh but many other States of the Indian Union, where favourable conditions for the generation of water power exist should emulate the steps taken by Japan. Japan, during a short time, not only revived and resurrected its dilapidated economy during the World War with the help of water power but also started rubbing its shoulders with the highly mechanized and developed countries of the world. In the decade and a half that followed the Second World War Japan registered a rapid economic growth @ of 11 per cent per annum. In the year 1952 the Industrial production index of Japan touched its pre-War level and it doubled in the year 1957. By the end of 1961 the industrial production index of Japan had gained a four fold increase. Today, Japan ranks as the fourth largest producer of iron and steel in the world and most of the blast furnaces in Japan are run by hydropower. With the exception of merely 1 per cent very remote and isolated villages almost the entire countryside of Japan has been electrified. The consumption of water power in Japanese villages is increasing at an average rate of 20 per cent per annum. Only because of this reason the standard of living of an average Japanese villager is among the highest in the world.

The Rihand, the Sharda hydroelectric generation project, the Mata Tila project the Naugarh project, etc., are the real steps taken in this regard in the State. The Matatila project is reputed in our country for its multipurposiveness, utility, cheapness and vastness. This project is an excellent example of the man and machine co-operation. It is said that every stone that has been planted on

this dam has passed six times through human hands. A symbol of national integration the dam has consumed about 3.5 crore stones. The backward area of Bundelkhand has really got new life by the power generated at this site. The State, however, requires not only one Matatila project but scores of such projects especially when favourable conditions occur in the State. With no coal reserves and petroleum containing strata and lack of atomic power producing elements the State shall have to depend on the net of streams and canals flowing over the major part of the State.

## *Agriculture and Livestock*

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Agriculture and livestock are two dominant sectors of the economy of Uttar Pradesh. They provide sustenance to about 80 per cent of the total population of the State. About 74 per cent of the total population is directly dependent on agriculture which engages 39.4 per cent of the total working force of the State. In many parts of the State agricultural operations are still carried through traditional modes. This necessitates domestication of animals like cows, oxen and buffaloes which, besides working as draft animals, also provide milk, milk products, manure, fuel and are used as beasts of burden: in the countryside bullock cart is still the most useful vehicle of transport. Foodgrains and other agricultural products are transported from the threshing platforms to their dwellings and markets by peasants on bullock carts. In mountainous areas, Tarai and Bhabar tracts and ravine infested Bundelkhand and Vindhyachal where physical environments do not permit profitable agricultural pursuits the inhabitants breed sheep, goats, horses, mules and camels which, apart from providing meat, milk and wool, are also used as beasts of burden. Now many people keep pigs and fatten the same on urban refuse. Poultry farming has also niched its place on the economic map of Uttar Pradesh. Now, greater and greater atten-

tion is being paid, especially by the government, to fish culture.

### **Agriculture**

The regional economy of Uttar Pradesh is dominated by agriculture. About 22 per cent of the cultivable land of our country is located in Uttar Pradesh alone, and the State has the credit of producing only about 18 per cent of the foodgrains of our country. In general, the proportion of net area sown to the total area is little above 60 per cent but there are wide regional variations in this respect which get sharper at many district and tehsil levels. The districts of Mathura and Agra located in the Yamunapar tract have the highest proportions (82 per cent and 73.1 per cent respectively) of net area sown. The upper Ganga-Yamuna Doab has over 70 per cent of its geographic area as net area sown. This proportion, however, decreases towards the downward courses of these two mighty rivers. In Rohilkhand the proportion varies from 60 per cent to 80 per cent. In the Awadh plain the variation is the widest ranging from Sitapur (74 per cent) to Kheri (53.8 per cent). The eastern parts of the Awadh plain because of large tracts infested with usar (waterlogged), and barren wastelands the proportion goes steeply down to 11.7 per cent (Pratapgarh), 13.3 per cent (Sultanpur); 17.4 per cent (Rae Bareli), 17.7 per cent (Lucknow) and 17.8 per cent (Unnao). Similarly, the proportion of net area sown to the total area is low in the marsh-swamp infested, forest covered lands of Tarai-Bhabar and undulating as well as harsh climate affected areas of the mountainous tracts. These parts, apart from being infertile, are also devoid of any net of canals. The ravine infested bad-lands in Bundelkhand and Vindhya-chal also show a lower proportion. However, in the field of agricultural output, the State has an impressive percentage (68 per cent) to its credit as compared to the national percentage of 52 only. A major part of the State is overlain with thick fertile alluvial soils, favourable climatic conditions and a good provision of irrigation facilities. The physical and climatic advantages no doubt make agriculture the most developed sector but the natural environment also renders other means of livelihood less developed and scarce. The average size of the holding in the State is only 1.86 hectares as against 2.69 hectares for the entire country. "The seriousness of this situation is compounded by the fact that the average yield per hectare of the various agricultural crops in Uttar Pradesh is lower than in the rest of the country. The gross value of the agricultural produce per acre in Uttar Pradesh is Rs. 123 as against Rs. 139 for the entire country."<sup>1</sup>

<sup>1</sup> Singh, S.K., *op. cit.*, p. 16.

The pattern of land use as elsewhere clearly reflects the overwhelming effect of environmental control. Temperature, rainfall, topography and soils mainly determine the land use pattern. Of the total agricultural area 7.2 per cent remains fallow, 8.3 per cent comes under the culturable wasteland and the rest, 84.5 per cent, is the net area sown in the State. Of the non-agricultural land of the state 33 per cent area is covered with forests, 33.1 per cent by settlements and communications, 19.5 per cent is barren and culturable waste while 19.5 per cent comes under pastures, commonlands (*shamlats*), groves, trees etc. Hilly districts have a higher proportion of area under forests.

*Cropping Pattern* : The state carries a more diversified cropping pattern although the food crops put a very high premium (88 per cent) and pressure on the cropped area. Cereals alone claim over 60 per cent of the cropped land while about 25 per cent of the cropped acreage is claimed by pulses. Sugarcane, the major cash crop, covers 6 per cent of the cropped land. Cotton, once a significant and leading commercial crop of the State, has reached near extinction and now only about 0.4 per cent of the cultivated land is devoted to this crop. It was sugarcane with richer dividends which gradually replaced the culture of cotton in Uttar Pradesh. Now, even oilseeds have surpassed the cotton acreage and are next only to sugarcane as a cash crop. The dominance of food crops in this State is clear as only 75 per cent of the total cropped land of our country is under food crops whereas in this State 88 per cent of the cropped land is under such crops. Rice, a high value food crop, no doubt covers 19 per cent of the cropped land but it is in the field of wheat cultivation that the State excels by sparing 19 per cent of its agricultural land as against only 8 per cent for the entire country. Gram, among the pulses, is quite a significant crop in the State and accounts for about 13 per cent of cropped acreage as against 6.5 per cent for India as a whole. Cotton, which covers about 4.5 per cent of the total cropped area of India, has been relegated to an insignificant place and now in Uttar Pradesh it covers even less than half per cent of the cultivated land. Sugarcane, no doubt, covers about 6 per cent cultivable acreage in the State (as against only 1.4 per cent in India) the lower yields offset the advantage of larger acreages. In the field of production Uttar Pradesh produces 46 per cent sugarcane, 35 per cent potatoes, 18 per cent foodgrains, 14 per cent oilseeds and only 1 per cent cotton of the all India crop productions. No doubt, among foodgrains, about thirty-three per cent of India's wheat is produced in Uttar Pradesh, yet it is striking to note that substantial quantities of cereals have to be imported by the State.

Wheat is the premier crop of the State and staple food of the people living in western Uttar Pradesh. About one-third of the wheat acreage of our nation lies in this State and also produces about 33 per cent of the total wheat produced in India. Wheat, a crop of temperate environment, requires cool and dry season at the time of sowing, cool and moist during growth and warm as well as dry reason at the time of harvesting. The ideal temperatures during these three stages are  $10^{\circ}$ ,  $16^{\circ}$  and  $22^{\circ}$  centigrade. Pre-sowing showers are quite beneficial for this crop. Rainfall ranging between 25 cms. to 75 cms. during winters mostly in drizzle form is quite favourable for wheat. Areas receiving lesser amount of rainfall and especially during droughts, can be saved by way of assured means of irrigation only. Well drained loamy, clayey and friable soils are the best soils for wheat. Moisture retaining soils, however, assure bumper yields of this crop. Though wheat is grown all over the State, yet in districts north of Allahabad the farmers reap a bumper crop of wheat. The Ganga-Ghaghra Doab, with half the total wheat production of the State, leads in the field of wheat production. About 25 per cent of the State's wheat is raised in the Ganga-Yamuna Doab while the area lying east of Ghaghra produces about 20 per cent wheat of the State. The districts of Dehra Dun, Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Moradabad, Aligarh, Agra and Badayun are the significant producers of wheat. However, the average per hectare yield (a little above two quintals) of wheat is quite low in the State. The infertile and ravine infested areas of Bundelkhand and Vindhyaachal produce lesser quantities of wheat.

Uttar Pradesh enjoys some very favourable conditions for wheat cultivation. The net of canals taken out of Ganga, Yamuna, Sharda, Ghaghra and their tributaries as also the spudding of wells and tubewells assure a regulated supply of water to wheat fields. The cyclonic rainfall caused by temperate cyclones in the form of drizzle proves quite beneficial to wheat. The dry climatic conditions prevailing in many districts of the State are very good for wheat cultivation. The alluvium brought by the rivers and their tributaries and distributed through the irrigating channels, enhances the soil fertility. However, the sudden increase in temperature after mid-January dries the grain quickly and does not allow complete and mature formation of the grain. Similarly, the warm winds that start blowing near the harvesting period hamper complete formation of good grains. The unwanted rains accompanied with hailstorms in early April prove truant to the standing as well as harvested crops. Every year like, in Punjab and Haryana, incalculable damage is caused to the wheat crop by the

unwanted precipitation.

Rice is an ancient crop of India and the mention of the word 'Odan' for rice in the *Rigveda* is an evidence of its antiquity : not only as a food crop ; rice has also been used in our rituals and rites since time immemorial. Even now we find that in our religious, matrimonial and post-mortem rituals rice and barley are used in offerings, prayers and other ceremonies. This speaks that rice and barely have been grown in our country since ages.

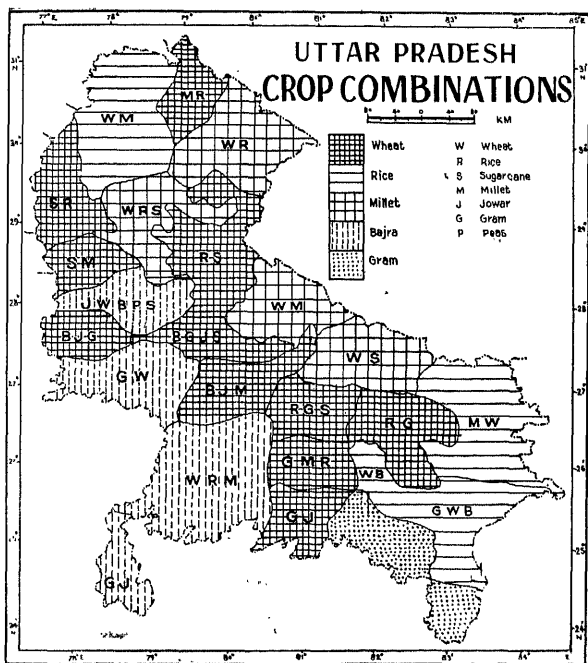
Rice thrives well under humid tropical climatic conditions. In fact, about three-fourth of the worlds' rice is raised in the tropical humid parts of southern, southeastern and eastern Asia. Some parts which have humid tropical environment throughout the year raise two to three crops of paddy every year. It is generally said that the crop of rice requiring plenty of heat, plenty of humidity, plenty of water, plenty of soil fertility and plenty of human labour can feed plenty of mouths. Paddy requires about 20°C temperature at the time of sowing, 24°C during its growth period and 27°C temperature at the time of maturity and harvesting. Paddy is not grown in areas where the average temperatures during this period fall below 19°C. The crop requires, on the average, 75 cms. to 200 cms. of rainfall during its period of growth. Other things being equal rice in areas with lesser amount of rainfall thrives well in regularly irrigated and inundated parts. It is said that the most suitable environment for rice is when its roots remain in 3 to 5-cm deep waters and the stalks remain in sunshine. This is possible only in areas of assured irrigation. Alluvial soils with a heavy content of clay are best suited for rice as such soils retain moisture for longer periods and do not permit the downward seepage of water. Such soils are available in plenty in flood plains, deltaic plains and coastal plains which are the rice bowls everywhere. Flatland is needed so that water from the rice fields is not drained out. For this reason only paddy is cultivated on terraced fields on mountainous slopes. The ploughing, transplantation, thinning weeding, watering and reaping of the crop require efficient and painstaking labourers in sufficient numbers and because of this reason the highest concentration of paddy cultivation is limited to densely populated regions. To recoupe the soils in some exhausted tracts nitrogenous manures, sulphuric acid and ammonium sulphate can be used as fertilizers.

In Uttar Pradesh paddy is cultivated over about 19 per cent of its cultivated land and the rice tract is mostly confined to the eastern parts of the State. Rice is, however, a significant crop in humid the sub-Himalayan Tarai where the districts devote 20 to 30 per cent of their cultivated land to paddy and this tract merges

into Avadh and the Lower Doab tract where rice dominates on 28 to 35 per cent of the cultivated land. The intensity of paddy cultivation decreases gradually towards the Central Doab and western Uttar Pradesh and becomes almost negligible in the Yamunapar tract. The districts of Ghazipur, Ballia, Deoria, Basti, Faizabad, Bahraich, Khiri, Shahjahanpur, Pilibhit, Gonda, Lucknow and Gorakhpur are the important rice producing districts of Uttar Pradesh. Dehra Durr in the submontaneous tract is an important producer and is known for its basmati rice all over the country. As in the case of wheat the per hectare yield of rice is lower than in many other States. But, it is quite encouraging to note that the State has established Rice Research Centres at Nagina (Bijnore) Faizabad, Gorakhpur, Majhera (Nainital) and Balachandpur (Bahraich) and this step would go a long way to boost and to improve upon the rice production in the State.

Maize is a multipurpose crop and it was introduced in our country by the East India Company from North America in the seventeenth century. Maize is an important foodgrain but in India, now, it is being treated as Giffon's good (poor man's diet) although people belonging to higher strata of life use it in different processed forms in their breakfast. In North America and Europe maize, i.e., corn, is fed to meat producing animals. The oil content in corn speedily fattens the cattle. The cattle fattened in corn fields are then taken to the slaughtering houses mostly located in urban areas and because of this reason it is said that "corn goes on hoofs to the market in the U.S.A." Besides a food crop and fodder for animals, maize is also used for the preparation of glucose, starch and many breakfast delicacies including corn flakes, porridges and is also mixed in custard powder, etc. Artificial rice is also produced from the white maize.

Maize is essentially a warm season crop and is sown in mid-June after the first showers and reaped in September. This tropical plant needs an average temperature ranging between 19° to 20°C. Though sunshine is quite useful for this crop, rainfall at regular intervals is also essential. It can be grown without irrigation in areas receiving an average amount of 75 cms of rainfall during its growth period. Corn is essentially a rich land soil exhausting crop. Fertile, deep and well drained loamy soils are the best soils for this crop. Only because of the availability of loamy soils about 75 per cent of the country's maize is grown in Northern India. Nitrogen is the best fertilizer for corn fields. That is why in many parts of India Urad or mash (black gram) is grown as an inter-culture crop in the corn fields because the roots of blackgram provide nitrogen to the soil.



At present, Uttar Pradesh is the largest producer of maize in India though off and on it exchanges this position with the neighbouring State of Bihar. About 37 per cent of the total cropped area under maize is located in Uttar Pradesh. The cultivation of maize in Uttar Pradesh is mainly concentrated in the upper and middle parts of Ganga Yamuna Doab. Saharanpur, Meerut, Bulandshahr, Aligarh, Etah and Mainpuri are the important maize producing districts although corn is also grown in the districts of Jaunpur, Ballia, Gonda, Bijnore, Rampur, Azamgarh, Farrukhabad and Bahraich. The State produces 28 per cent to 30 per cent of the total maize grown in India.

Barley is a poor man's staple food in many parts of northern India. Like rice, barley is an ancient grain of India and it is still used in many of the Hindu ceremonies, rites and rituals. The excavations at Mohanjo-daro and Harappa have revealed that the original Dravid inhabitants of India widely used barley. Barley flour mixed with wheat flour is used for making loaves and its flour is also used as 'sattu' in many parts of India. Best type of beer is obtained by brewing barley. Like wheat barley is a temperate crop and because of this reason more than 90 per cent of barley crop is grown in northern India. About 37.5 per cent of the barley acreage of India is located in Uttar Pradesh alone whereas the State itself grows barley on its 9 per cent cropped acreage. Uttar Pradesh produces about 55 per cent of the barley production of India and is the largest barley producing State of our motherland.

Barley needs a similar physical environment as that required by wheat though its adaptability with regard to soil and moisture is remarkable. The barley plant can tolerate more drought conditions, lesser fertile soil, more cold and frost. About 10° to 20°C temperature, 25 cms to 75 cms rainfall, porous soils even with a content of alkalinity are quite favourable for barley production. Gorakhpur, Deoria, Basti, Azamgarh, Ballia, Ghazipur, Varanasi, Mirzapur, Sultanpur, Pratapgarh, Sitapur and Unnao are the important barley producing districts of Uttar Pradesh. Barley is also raised in the hilly tracts of Garhwal and Kumaon hills as also in some western parts of the State.

Bajra be it the original plant of Africa or China, is controversial among the agronomists. Some people claim India to be the original home of Bajra. Bajra is grown all over India with the sole exception of the north eastern tract. Bajra is poor man's food and is widely used throughout India as such by the lower strata of society although sometimes rich people also use it just for the sake of variety of food. In some parts of India Bajra is also used as a fodder crop and its nutritional value as a fodder is richer than that

of jowar. Requiring  $20^{\circ}\text{C}$  to  $25^{\circ}\text{C}$  temperature and 30 cms to 35 cms rainfall Bajra can be grown on comparatively poorer soils. Light sandy soils are best for Bajra. Claiming little over 7 per cent of the cropped land of the State bajra is the most important millet of Uttar Pradesh. Uttar Pradesh is the third largest producer of Bajra after Rajasthan and Gujarat in our country and produces about 16 per cent of the total Bajra output of India. The south-western plain of Uttar Pradesh is the largest producer of Bajra in the State. Bulandshahr (9.2 per cent of the cropped area), Aligarh (19.5 per cent), Mathura (14.5 per cent), Agra (24.7 per cent) Mainpuri (14.7 per cent) Etah (20 per cent) Badayun (18 per cent) Moradabad (9.5 per cent) and Etawah (16.7 per cent) forms a compact block of bajra production in Uttar Pradesh.

Jowar, popularly known as sorghum in western countries is an important food as well as fodder crop of India. In its nutrient contents Jowar is equated with wheat by many crop scientists. An original plant of Africa, Jowar is being grown in India since time immemorial. This single crop covers the largest cropped acreage in India. Jowar is a warm season crop which is a kharif as well as rabi crop in southern India but only a kharif crop in northern India. Jowar needs an average temperature of  $21^{\circ}\text{C}$  but can be grown in areas with a temperature ranging from  $25^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ . Too much of moisture and too much of drought is inimical to Jowar crop. The ideal amount of rainfall for this crop should be in a range of 35 cms to 50 cms and it cannot be grown in areas with more than 80 cms of rainfall. Though Jowar can be grown on a variety of soils light as well as heavy sandy loams suit it the best.

Jowar is grown over slightly less than 4 per cent of the cultivated land of Uttar Pradesh and the crop assumes a greater importance in the district of Mathura where 7.8 per cent of the cropped land is under this crop. The Central Lower Doab comprising the districts of Kanpur, Allahabad and Fatehpur is the second important Jowar belt of Uttar Pradesh "which merges into the famous Jowar belt of the Vindhyan Hills and the plateau region towards south, and tapers into a rather compact narrow zone formed by Unnao (6.8 per cent), Rae Bareilly (7.3 per cent), Lucknow (4.9 per cent), Hardoi (5.6 per cent), Shahjahanpur (4.5 per cent), and Bareilly (4.7 per cent)."<sup>2</sup> Jhansi, Hamirpur and Banda are other important producers of Jowar. In Bundelkhand Jowar forms the staple diet of the populace.

Gram is a highly prized crop containing a rich content of phosphoric acid. In India, it is a multipurpose crop. Apart from being

used as a pulse, gram flour is also mixed in wheat flour to prepare loaves as also for preparing many sweet and saltish preparations such as 'mesu', 'boondi', 'halwa', 'laddoo', 'pakaura' and karhi'. The horses whose power has even come to stay as a power measuring unit throughout the world are mainly fed on grams. Because of its high nutritious value gram is known as 'Indian almond'. Gram is a rabi crop and assumes the second place of importance after wheat among the rabi crops.

Gram can be grown in many types of soils but water retaining stiff loamy and heavy soils are preferred for this crop. Brown alluvium and black cotton soils also allow the crop to thrive. Very fertile soils are not given to gram cultivation because in such soils the stalks thrive at the cost of fruit. Moreover, the roots of gram are capable of going to greater depths and thereby consume the salts and mineral contents from those depths. Gram is also a leguminous plant and its roots gather nitrogen from the atmosphere and thereby do away with the necessity of artificial manuring. Preparatory tillage of a very minor nature is required. Requiring a cool and moist growth period, gram needs a warm and dry season at the time of its maturity and harvesting. The temperature ranging between 15°C and 25°C is the best for this crop. An average rainfall of 40 to 80 cms is best for gram. Too much of rainfall and frost play havoc with this crop.

Gram occupies about 12.5 per cent of the total cropped land of Uttar Pradesh whereas 27 per cent of the total acreage of our country is located in this State. Uttar Pradesh alone produces 1/5th of the total gram crop of the country. In Uttar Pradesh, gram is grown both as an individual and a mixed crop with sesame etc. The Yamunapar tract and East Central Rohilkhand and contiguous parts of the Avadh plain are important gram producing parts of the State. The district of Agra with 21.2 per cent of its net cropped area under this crop is the largest producer of gram in the State. Mathura, Rampur, Bareilly, Shahjahanpur, Pilibhit, Sitapur, Hardoi, Fatehgarh, Allahabad, Sultanpur, Faizabad, Kanpur, Etawah, Mainpuri and Farrukhabad are other important gram producing districts of Uttar Pradesh. Banda, Jalaun, Jhansi and Bijnore also produce significant quantities of gram.

**Pulses :** Many Rabi and Kharif pulses are grown throughout Uttar Pradesh. Among the Kharif pulses Urad (black gram), Moong (green gram), Arhar (pigeon peas), Moth (brown gram) and among rabi pulses Chana i.e., gram (already narrated), Mattar (peas) and Masur (grey gram) are the important crops. Pulses form a very significant and essential part of the Indian diet. In the words of

Mahatma Gandhi, the vegetarians must take anyone pulse daily which provides a protein rich food equivalent to mutton or pork. It is estimated that Uttar Pradesh is the largest producer of pulses in India. About 20.7 per cent of the cropped land under pulses in our country is found in Uttar Pradesh and the State produces 30 per cent of the pulses produced in India. Arhar and Masur are two significant pulse crops of Uttar Pradesh. The original home of Arhar is India and it is grown in India for the last three thousand years. Arhar is not grown as an individual crop but it is grown either as an interculture crop or as an enclosing crop. The stalk of this crop is put to many uses. Besides using the stalk as fuel, it is also used for creating enclosures around kacha wells, courtyards and the threshing platforms. While grinding it into a pulse the smaller fragments are turned into flour and poor people eat loaves made of this flour. Now, some saltish dishes are also being prepared of Arhar. Arhar is a significant crop of Agra and Kanpur but loses its importance in the Tarai tract. However, it is Masur that attains prominence in the Tarai region. The Masur producing belt spreads from Bareilly to Gonda and Shahjahanpur with Bahraich at the top.

*Oilseeds* : Groundnuts, sesame, mustard, rape and linseed are the important oilseeds grown in Uttar Pradesh. Groundnut is the chief source of cooking oil, hydrogenated oil (Vanaspati ghee), soap and toilet requirements. Groundnut is an original plant of Brazil and is popularly known as peanut or monkey nut in America. The scientific analysis of groundnut carried on in food laboratories reveals that in a country like India where millions suffer from protein deficiency, people can make it up by taking ten paisa worth of groundnut daily. Although groundnut has been grown in our country right from the beginning of the present century, its cultivation picked up intensity only during the last two decades. Requiring sandy loam soils, a temperature of 15° to 25°C alongwith an average rainfall of 75 cms to 100 cms, groundnut is grown in some concentrated pockets of Uttar Pradesh. These concentrated belts are located in the northwest-southeast tract from Moradabad to Lucknow and the Upper central part of the Upper Ganga plain. "As it thrives well on light sandy soil not suitable for most other crops, it assumes great importance of the Bhur tracts of Moradabad and Badayun and the sandy soils of Sitapur and Hardoi, which together account for about half of the groundnut area of the state."<sup>3</sup> Farrukhabad, Etah, Mainpuri, Bareilly, Bijnore, Muradabad, Badayun, Shahjahanpur, Sitapur, Unnao and Kanpur are the

important groundnut producing districts of the State. Sesame is the second important oilseed of the State. India is said to be the original home of sesame. The word 'tel' for oil is probably derived from the oilseed of sesame popularly known as 'til' in our country. Like rice and barley sesame is used in almost all Hindu ceremonies, rituals, rites and offerings, etc. This speaks about the antiquity of this crop in India. Sesame thrives well on light sandy as well as black cotton and red soils. It is mostly a rainfed crop grown in areas receiving an average rainfall ranging from 50 cms to 100 cms. It is a crop of warmer tracts and requires a temperatures ranging between 20°C to 25°C. It is estimated that both the crops of groundnut and sesame cover nearly 1.5 per cent of the total cropped area and produce about 22 per cent of the national oilseeds production. The Yamunapar tract, and especially the districts of Jalaun, Banda and Hamirpur, are the important producers of sesame in Uttar Pradesh. Rape and mustard are next to groundnut in acreage. Mustard and rapeseed are concentrated in two tracts. One tract runs from Mathura to Kanpur and reaches beyond the region in Jalaun. The second cluster of rape-mustard cultivation covers the Tarai districts of Kheri-Bahraich, Gonda and further east to Gorakhpur. The Allahabad tract is important for linseed-production.

*Sugarcane* : It is said that sugarcane is the original plant of India. In ancient times the plant was found grown as a grass plant in the coastal parts of Bengal. There are references about this plant in Vedic literature also. The Chinese historians describe that the sugarcane plant was brought from India in the eighth century B.C. and planted in China. A tropical plant, sugarcane requires a temperature of 20°C to 25°C, bright sunshine, cloudless skies and frost free nights. Grown in deep moisture retaining soils, sugarcane can be grown either with artificial application of water or in areas receiving 80 to 100 cms of rainfall. The sea breezes impart a very good effect on sugarcane plantations and enhance the sucrose content. Sugarcane plantations also require cheap and abundant labour. In spite of the fact that the best favourable conditions for sugarcane plantations are found in southern India about 80 per cent of the sugarcane is grown in northern plain. The reason for this uneconomic activity is that in northern India, with the exception of sugarcane, there is no other cash crop which can bring currency to the farmer to meet his needs with regard to clothing, education of his children, ceremonies, etc. In the good old days indigo was a cash crop but the invention of synthetic substitutes led to the decay of indigo plantations and the farmer had to resort to sugarcane cultivation.

Sugarcane is the prominent cash crop of Uttar Pradesh and covers about 59 per cent of the sugarcane acreage of the country. Uttar Pradesh is also the largest producer of sugarcane in India constituting about 46 per cent of the national production. About 6 per cent of the total cropped land of the State is given to sugarcane plantation. Sugarcane cultivation is concentrated in two tracts in the State. The portion covering the Upper Ganga-Yamuna Doab and Rohilkhand is the first in which Meerut, Saharanpur, Bulandshahr, Muzaffarnagar, Moradabad, Bijnore and Rampur are the important sugarcane producing districts. The second tract spreads over Central Tarai and its adjacent areas covering the districts of Pilibhit, Kheri, Sitapur, Gonda, Faizabad, Basti, Jaunpur, Deoria, Azamgarh, Ballia and Gorakhpur. Gorakhpur is known as 'Jaya' of Northern India. Shahjahanpur, Hardoi and Varanasi districts also grow sugarcane.

*Cotton* : Once an important cash crop of Uttar Pradesh cotton acreage has now been replaced by sugarcane acreage. Only about 0.4 per cent of the cotton acreage of our country is now found in Uttar Pradesh and the State contributes only 1 per cent to the national cotton production. Cotton culture is mainly concentrated in the Western plain between Mathura and Muzaffarnagar where these districts grow cotton on their 1 per cent of cropped acreage each. After the partition of the country, jute has entered the State as another cash and fibre crop. Jute is confined to the more humid parts of the Tarai tract. Districts of Kheri, Bahraich, Rae Bareilly and Gorakhpur are the important jute producing areas of the State. The local production is consumed in the State jute mills and no raw jute is exported to the jute mills of the West.

Sustained efforts are being put in by the State government and farmers to increase the per hectare yields of crops and their total production. The total production of foodgrains reached the highest limit of 181.33 lakh tons in the year 1972-73. The following year registered a sharp decline in the total production because of the widespread menace of frost. In the year 1974-75 the production again rose to 164.2 lakh tons which was about 5.5 per cent higher than the preceding year. The production of oilseeds set a new record with an output of 19.10 lakh tonnes. In the same year efforts were made to raise the crops of Soyabeans and sunflower to meet the ever increasing demands for oil and protein rich foods. About 0.21 lakh tons of Soyabeans and 0.25 lakh tons of sunflower seeds were produced that year in the State. In the field of agricultural research the Agricultural University, Pantnagar and Chandra Shekhra Azad Agricultural University, Kanpur have rendered

great and valuable services. The former seat of farm learning serves Rohilkhand, Kumaon, Garhwal and Meerut divisions whereas the latter University serves other divisions of the State. Another seat of farm learning has been established at Faizabad to meet the needs of eastern Uttar Pradesh. High yielding seeds, improved agricultural implements, compost manures, chemical fertilizers, crop insurance schemes, soil and water conservation, farm storage, agricultural research, agricultural training to the peasants, adult education and assistance to small farmers are some of the progressive steps being taken by different agencies to step up farm production, quality and economic emancipation of the farmers.

### **Cattle Wealth and Livestock**

In an agriculture dominated State in agricultural operations and techniques and traditional animal husbandry play a very vital role in the economic life. Animal husbandry is next to farming in Uttar Pradesh. In fact, not to speak of Uttar Pradesh alone, with the sole exception of a few mechanised farms, animal husbandry is a supplementary economic activity in every agricultural family and agriculture as it exists in our countryside is mixed farming. "It is an important part of a sound system of diversified agriculture. The integration of crop production and animal husbandry provides fuller employment to cultivators throughout the year."<sup>4</sup> Livestock, in fact, is part and parcel of Indian peasants' wealth. Next to his own progeny it is the ox and cow that are dearer to an average Indian farmer. He needs oxen to plough his field, to pull his cart and needs cows and buffaloes to provide him with milk and milk products. His animal wealth depends upon the quality and number of breeds he is bringing up. The cows and buffaloes breed calves and he-buffaloes for the farmers which in due course are to become the part and parcel of his farm equipment. After death the animals give hides, skins, bones, wool, etc. on which many industries are based. In our countryside many people still carry on the profession in hides and skins. The leather goods industry is entirely based on the skin of animals. The boots and shoes we wear on sands and snows are prepared out of the skin provided by animals. Kanpur, a great centre of tanning, leather making and leather goods manufacturing, is based on the cattle wealth of the State. No doubt many substitutes have been discovered for leather but in durability and reaction free comfort no synthetic leather can excel the natural leather provided by the skin of animals,

<sup>4</sup> Tewari, A.R., *op. cit.*, p. 54.

The State of Uttar Pradesh covers about 9.5 per cent of the geographic area of our state but it contains about 14 per cent of the national animal wealth. In accordance with the Animal Husbandry Census taken in the year 1972 following is the position with regard to Uttar Pradesh's cattle wealth :

*Milk and Draft animals**Beasts of Burden, Livestock & Poultry*

(In thousands)

Cows	6,745	Goats	6,610
Bulls and Oxen	13,694	Sheep	1,956
Calves	5,779	Horses	230
Buffaloes	6,589	Ponies and mules	37
He-buffaloes	1,627	Donkeys	210
		Pigs	1,310
Camels	44	Poultry birds	3,920

In the year 1967-68 the total income derived from animal wealth on 1960-61 prices amounted to Rs. 163.36 crores and it formed 7.8 per cent of the State's income. Thereafter, the economics and statistics department of the State has ceased to calculate the separate income derived from animals. But, some economists have estimated that on 1960-61 prices the gross income derived from cattle wealth in the year 1972-73 was Rs. 279.464 crores. By this time the income so derived has surely crossed Rs. 300 crores. Taking breed-wise estimates in the year 1972 about 21 per cent cows, 16 per cent buffaloes, 6 per cent of the sheep, 13 per cent of the goats, 20 per cent of the horses and ponies of the country were found in Uttar Pradesh alone. This way Uttar Pradesh is the most populous State of India not only from human-heads point of view but also according to the number of its animal heads. Consequently, the share of Uttar Pradesh in the field of milk and ghee production is the largest in the country. Uttar Pradesh alone produces about 27 per cent of the milk and 20 per cent of the ghee (pasteurised butter) of the nation. But keeping in view the overwhelming human population of the State, the per capita consumption of milk is lower than that of Haryana and Punjab and is also lower than the national per capita consumption of milk. Apart from milk and milk products the State

of Uttar Pradesh produces about 16 per cent of meat, 8 per cent of hides, 14.5 per cent of skins, 6.75 per cent of wool and 15.6 per cent of bones of the total production of the country. However, the egg production in the State is quite low and it produces only about 3.75 per cent of the total egg production of the country.

As elsewhere, the distribution of livestock responds to the physiographic environment of the area. Goats are capable of traversing undulating topography and can thrive on the leaves and soft twigs of trees, bushes and scrubs. Therefore, the largest number of goats are found in Kumaon and Uttar Khand regions. Since the populace of these remoter parts are superstitious and religious minded they must domesticate cows, howsoever weak, slender and thin they might be. In the ravine infested parts of Bundelkhand and Vindhya-chal, where there is paucity of grass and fodder, sheep are found which can sustain on the meagre and minimum supplies of grass and shrubs. The drier parts of Uttar Pradesh adjacent to Rajasthan have a good number of horses, ponies and camels which are used as beasts of burden. In these drier parts camels are also used for pulling the plough. Buffaloes are mostly found in the eastern part of the State whereas cows, oxen, etc. are mainly confined to the central parts. The number of sheep in the state is, however, quite low and this is because of the absence of grazing lands, meadows and pastures. On the other hand, the number of horses and ponies is quite large in the State. About 25 per cent of the horses and ponies of India are found in Uttar Pradesh alone. This vast number is due to the fact that most of the State vehicles (tongas, ekkas, kharkharias) are driven by animals and ponies.

The per head yield of milk and meat is, though at a comfortable local level, yet, in accordance with the average international standard, it is at the lowest ebb. Poor pastures, shortage of nutritious fodder, unhealthy breeding surroundings, insufficient care, absence of veterinary services in most of the areas, prevalence of diseases like rinderpest and parasitosis and poor indigenous breeds, are responsible for such poor milk and meat yields.

Keeping in view the important role played by animals in a traditionally oriented agricultural economy steps to improve the animal breeds were initiated in the First Plan period. By the end of 1976 the State had about 1,120 veterinary hospitals and 2,000 veterinary dispensaries. To improve the cow breeds, local cows were cross-bred with Haryanvi, Sahiwal, Sindhi, Tharparkar and Gangotri bulls. Thereafter, Jersey breeds were imported to further improve the cow breeds which are now yielding more per head milk than earlier. Similarly, the buffaloes have been cross-bred with Murrah breeds. At present, there are about 735 semen insemination centres in the

State with about 1,616 branches spread over the length and breadth of the State. Intensive animal development centres have also been started at Lucknow, Kanpur, Moradabad, Halduani, Aligarh and Meerut so that milk production can be stepped up further. As a result of these intensive efforts the per head yield of milk of cows and buffaloes has increased at the rate of 11 to 17 per cent and 4 to 10 per cent respectively.

In the year 1972, 19.56 lakh sheep produced 16.80 lakh Kgms. of wool which was quite low. To get more wool per sheep the local sheep have been cross-bred with foreign rams. The project of improving wool production aims at cross-breeding the local sheep with Rajasthani rams so that a first rate wool for drugget manufacturing is obtained. In mountainous tracts, local sheep are being cross-bred with foreign breeds so that fine wool can be produced for the manufacturing of fine woollen cloth.

To improve upon the breed of pigs so that they can yield more protein rich meat a Pig Breeding Centre was started at the Central Dairy Farm, Aligarh, during the Third Plan period. To utilise and can the meat obtained from healthier and better pigs a modern bacon plant has been set up in the Dairy Farm itself. Pig Development Blocks have been set up to improve upon the indigenous breed of pigs by way of cross breeding with imported breeds. The Central Dairy Farm, Aligarh, also houses a laboratory where research with regard to bacon and pig-diseases is carried on.

We find in our countryside that optimum and full use of the dead bodies of village cattle is not made. With the collaboration of Netherlands an ideal training-cum-production centre in this connection was started at Bakhshi-ka-Talab, Lucknow during the second plan period. In this centre the persons carrying on the profession of un-skinning the dead animals are given a proper and scientific training so that no part of the hides and skins goes waste. The Centre encourages the people of this category living in villages to come forward for a scientific training, so that they can get the essential knowledge about making the best use of each and every part of the body of the dead animal. Currently, about two dozen co-operative societies by such trained personnel are being run in different parts of the State.

### **Poultry Farming**

Poultry farming drive in this land of majority of vegetarians was initiated in the First Plan period. Egg is a perfect food and possibly no method has so far been devised by the national enemies to adulterate this protein rich food. Moreover, the eggs obtained at

the poultry farms with the help of poultry food only are purely vegetarian eggs and do not contain any life though they have a higher cholestrol content. With these views in mind the poultry farming was vigorously developed during the subsequent plan periods. Poultry farming is progressively gaining popularity as an economic activity and during the year 1974-75 about 6.70 lakh hens and chickens of different ages were distributed to prospective poultry farmers.

Industrial complexes and cantonment areas, to help increase the production of eggs and chicken meat and intensive Poultry Development Centres have been started in the vicinity of big towns and private entrepreneurs are financed, guided and helped to set up poultry farms. To provide balanced poultry feed three balanced poultry feed manufacturing plants were set up at Hapur, Lucknow and Gorakhpur during the Third Plan period. In the year 1975-76 about 1700 metric tonnes of poultry feed was sold in the market. To carry on research in poultry feed and farming a research cell has been established in the State Cattle and Agriculture Research Institute at Chak-Ganjaria, Lucknow. Besides, the Veterinary College, Mathura has launched a project of breeding cross-bred hens which yield more and better eggs. Under the applied nutrition programme the economic activity of poultry farming is being vigorously popularised in the rural countryside. Steps have also been initiated to prevent the spread of diseases among fowls. During the year 1975-76 about 24 lakh fowls were injected to protect them from the contagious diseases.

### **Fishing**

The population explosion in many parts of the world and especially in monsoon Asia has worried the food scientists the world over. The scientists are sparing no effort to invent and discover substitute human food because the fertility of mother earth has a certain limit beyond which it cannot support the swarming humanity breeding like rabbits and rats. Food scientists and economists are of the view that water bodies which cover about 71 per cent part of our planet are the potential and rich resources of a protein rich food in plenty. Only people living in India shall have to change their food habits. Millions at present in India suffer from protein deficiency and fish can provide the same.

Under the Grow More Food Campaign fish culture was given a trial in Uttar Pradesh. Till 1950 the fisheries development programme had covered 13 villages of the State and by the end of the First Plan period the programme had sneaked into 31 villages and now

the fish culture programme has reached 53 districts of the State. The State of Uttar Pradesh is the sixth fresh water fish producing State in India. Only 3.5 per cent of the total area of this land-locked State is covered with rivers, canals, lakes, tanks, ponds and water reservoirs. In the year 1961 the State produced only 3 per cent of the total fresh water catch of the country, out of which 60 per cent was exported to other States. Fish catch is obtained from the Ganga, Yamuna, Gomti, Ghaghra, Ramganga, Sarda rivers and their numerous tributaries. The major centres of fish catch are located at Allahabad, Ballia, Fatehpur, Etawah, Agra, Ghazipur, Kanpur and Varanasi.

Out of 4.45 lakh hectare water reservoirs of the State only 1.410 lakh hectare water area is fit for fish culture. The catch of fish from the flowing streams can be of limited scale only. Thus, programmes of breeding fingerlings in many ponds and tanks in the State was started during the Second Plan. During the Second Plan period only 14.76 lakh fingerlings were produced but this programme gathered a spurt and in the year 1975-76 the production of fingerlings touched a new height of 16.92 crores. Ten new fingerling producing centres have been added in the State.

To boost the fish production in the State about 600 water bodies have been surveyed. To make most of the bodies fit for fish culture these are being given lime treatment, chemical fertilization and plankton, i.e., food for fish in the form of insects, etc. The tanks and ponds are being deepened and fish catch is being regularised biologically according to season. To meet the growing demand for fingerlings 67 fingerling farms have been established in the State. The per hectare water yield of fish which stood at 5.85 Kgm. to 9.98 Kgm. has now touched a new record of 45 Kgm. per hectare. In the largest water reservoir of the State, Rihand, about 270 metric tonnes of fish is caught every year. A large number of personnel for fish culture have been got trained at various fisheries education and research institutes. Two such centres at Chinhat (Lucknow) and Agra are situated in the State itself. During the year 1974-75 the total fish catch both in public and private sector amounted to 25,220 metric tonnes valued at Rs. 1320.75 lakh whereas the 1961 catch stood at 9,000 metric tonnes only.

Apart from the development of fish culture the economic and social emancipation of fishermen is an integral part of the fisheries development in the State. To achieve this aim 54 Co-operative Fishermen Societies were instituted during the Second Plan period. A soft loan amounting to Rs. 3.30 lakh was advanced to these societies for the purchase of necessary equipment and hiring of water bodies. Cold storage facilities were also extended to these

societies. The number of such societies has now reached three scores and there is a provision to supply a loan of Rs. 10,000 per annum to each society for the purchase of equipment required for the furtherance of fish culture, fish catch and fish storage. With the changing food habits of new generation fisheries have a bright future in the State. Still there remains an arduous task of chemically examining the waters of many many ponds, lakes, tanks, effluents and rivers. Once this herculean task is completed the State is likely to emerge as one of the largest fresh water fish catching provinces of India.

## *Manufacturing and Handicrafts*

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The present period is known as the industrial period of the economic history of the world. Many nations which were agriculture dominated nations during the yester years took to industrialization for their rapid economic development and the emancipation of their poverty stricken masses. Even the agricultural affluence in nations like the U.S.A., the U.S.S.R., Canada, etc., has been the direct result of rapid growth of industrialization. The development of industry and its natural corollary, trade, provide employment to increasing numbers, make capital available for investment in quickly returning profitable vocations, enhance the state revenue, make people less dependent on primary economic activities, wipe out disguised unemployment, properly develop and stabilise the primary economic activities of fishing, hunting, animal husbandry, agriculture, forestry, mining, etc., and through increased wages raise the standard of living of people. Apart from these direct benefits industrialization brings a change in the outlook of the people and ultimately becomes a defence of the nation. An almost mountainous nation, Japan, devoid of iron ore, coal, petroleum and other raw materials like cotton, became a leading industrial nation by dint of her innovative efforts based mainly on imported fuel and

raw material. Of course, industrialization has its disadvantages too. The creation of slums, industrial disputes and atmospheric pollution are its major defects, but these are not unsurmountable problems. The use of water power and atomic energy can totally wipe out atmospheric pollution. Planned industrial complexes and industrial estates can do away with the problem of increasing slums. If industries and factories are located at a distance from the residential parts as in Chandigarh the populace can safely and cheaply be saved from dirt, soot, filth and other adverse effects. If our industry and factory owners shun the capitalistic and bossist attitude and allow the well deserved and richly earned participation of workers in industrial management industrial disputes will become things of the past. In the true Gandhian sense, if our industrialists become the trustees and work shoulder to shoulder, in whatever capacity, with workers there can be a reign of industrial peace in the country. The net result of this discussion is that manufacturing is the key to plenty, progress, peace and prosperity provided it is introduced in a phased, purposeful and planned stages.

### **Industries**

Uttar Pradesh, the most populous State of our country, is, unfortunately, one of the least industrially developed States of India. Lack of basic minerals and power resources are attributed as the causes responsible for the industrial backwardness of the State. "Industrial occupations in U.P. engage only 2.8 per cent of the working force as against 4.2 per cent for the whole country. Industries contribute only 10 per cent of the State income as against 18 per cent for the whole country. The factory employment per 10,000 of population in Uttar Pradesh is 47 as against 92 for the entire country. The productivity per worker is also lower. The total capital invested in industries in the State is only 7 per cent of the total capital invested in the whole country when the population of the State is 17 per cent of the whole country. Factory output and employment for Uttar Pradesh is also approximately 7 per cent of the total factory output and total factory employment in the country."<sup>1</sup>

Uttar Pradesh, though industrially not important, its western part is relatively more industrialized. The districts located in the western part have a higher proportion of industrial workers (Meerut 22.5 per cent, Agra 19.3 per cent and Kanpur 18.7 per cent) than the eastern districts where the proportion ranges between

1 Singh, S.K., *op. cit.*, p. 16.

5 per cent and 10 per cent and sometimes even below 5 per cent as in the districts of Budayun, Kheri and Bahraich. With the exception of five districts, namely, Bareilly (53.5 per cent), Rampur (61.5 per cent), Agra (66.5 per cent), Lucknow (71 per cent) and Kanpur (75.5 per cent) where manufacturing other than the household industry records the highest percentage of the total industrial workers, the household industry commands an overwhelming importance all over the State. About 90 per cent of the registered industrial units of the State are of small size and engage less than six workers. Apart from the great industrial hub of Kanpur and the usual foundry and consumption goods producing regional centres the industry in the State is mainly agro-based, wood based, leather based, non-metallic minerals based and chemicals based. "However, the State is quite close to the steel plants in the country and the main strategy of its development should be to establish really large scale engineering units based on obtaining steel from the neighbouring iron and steel belt. With this end in view, the establishment and expansion of an alloy steel plant, an aluminium plant and machine tools manufacturing units have been recommended."<sup>2</sup> More than a decade has passed when the National Council of Applied Economic Research submitted its report. It cannot be said that the government took no measures to execute the recommendations but the rate of execution has been miserably sluggish.

*Sugar Industry* : The State of Uttar Pradesh is the single largest producer of cane sugar in India. There are about 76 sugar factories in the State, most of which are situated in the sugarcane belts of the Ganga-Yamuna Doab and the Tarai tract. The only exceptions are the sugar mills of Neoli (Etah), Kanpur and Burhwal (Barabanki). The large scale production of sugarcane, huge local demand because of dense population alongwith cheap and efficient means of transportation, have developed sugar manufacturing in the State. In the Ganga-Yamuna Doab the major sugar producing districts are Saharanpur (Luxar, Deoband and Saharanpur), Muzzaffarnagar (Mansurpur, Shamli and Khatauli) and Meerut (Daurala, Modinagar, Simbhawli, Mui-ud-dinpur and Meerut). The highest concentration is found in the districts of Meerut (8 units) and Muzzaffarnagar (4 units). In the Tarai belt Gorakhpur (Ghughli, Anandnagar, Pipraich, Siswa Bazar and Sardarnagar), Basti (Balterganj, Khalilabad, Basti and Barhni), Deoria (Deoria, Bhatni, Luxmiganj, Ramkola, Chhatauni, Captainsgurj and Gauri Bazar),

Sitapur (Maholi, Hargaon, Biswan), Gonda and Faizabad are the major cane sugar producing districts. The district of Deoria with 14 units finds the highest concentration in the belt as well as the State. In between these two belts sugar is manufactured at Bareilly, Shahjahanpur, Bijnore and Moradabad. The State produces about 50.4 per cent of the total sugar manufactured in the country as a whole and exports 5 to 6 lakh tons of sugar to other parts of the country. Besides, a large quantity of jaggery ('gur') and brown sugar ('khandsari') is also manufactured in the countryside of the State.

The sugar manufacturing units economise their cost of production by developing byproduct industries. About sixteen units use their molasses for distilling, rectifying and blending spirit. The largest distillery at Lucknow, however, lies outside the sugarcane belt. A soft drinks manufacturing plant has been established at Kanpur whereas Rampur manufactures wine and especially rum for the forces.

*Edible Oil Industry* : Among other food processing industries rice and dal mills, the oil seed crushing units, i.e., oil mills, hydrogenated oil (Vanaspati ghee) units, bakeries, confectionaries, fruit processing and dairy industry have niched a respectable place on the industrial map of Uttar Pradesh. All these are medium and small scale units and are located both in large and small towns, though the highest concentration is found in the Doab region with Kanpur, Allahabad, Etawah, Aligarh, Hathras, Ghaziabad and Meerut as important centres. Lucknow, Bahraich, Shahjahanpur, Bareilly and Rampur the other significant centres lie outside the Doab tract. "Peculiarly enough, vast majority of U.P.'s. 141 rice mills (2,518) are located in this region (Upper Ganga Plain) instead of the rice dominated East U.P. plain; the largest number is in Bahraich (21) followed by Mainpuri (13) and Etawah (12). Most of the rice mills are centred in small market towns. Similarly, most of the State's 104 dal mills are located in this region. Kanpur (288) has the maximum employees in its 15 mills, while the largest number (22) of mills are located at Hathras."<sup>3</sup> The district of Aligarh alone contains about 38 per cent of the dal mills of the State.

There are about 120 large edible oil mills in the State whereas the number of such small sized mills has already crossed the figure of 250. Besides, there are indigenous oil seed crushers ('Kohlloo') in many villages of the State. In the edible oil mills the oil is extracted from the oil seeds like rape, mustard, linseed, groundnut

and sesame. About 22 per cent of the oil seeds of the entire country are produced in Uttar Pradesh and the oil obtained by crushing these seeds is naturally the heavily demanded cooking and frying medium in this most populous state of Indian Union. About 20 larger edible oil mills are located in Kanpur alone which leads in this industry and employs about one-fourth of the employees deployed in the State's oil mills. Agra and Hathras are other two notable oil mill centres of Uttar Pradesh.

Uttar Pradesh has four hydrogenated oil mills. The oils mainly obtained from groundnut, sesame and coconut are refined through some chemical processes. This refined oil is then passed through hydrogen and it becomes the hydrogenated oil or Vanaspati ghee. The history of hydrogenated oil industry in our country is quite interesting. In the year 1922 Rally Brothers imported Lilly Brand vegetable ghee from Netherlands and tried to popularise it. But the tradition bound rural folk of India opposed the move. Since its lower cost of production made it much cheaper than the ghee produced in India, its use found a ready way in hotels and restaurants. Resultantly, the first hydrogenated oil mill was started in India in 1930 by an industrialist Mr. Mela Ram who imported the hydrogenation plant from Holland. The Second World War gave an impetus to this industry. The strong protest shown by the people, however, could not deter the industrialists and entrepreneurs. The Dalda manufacturers even distributed Vanaspati ghee packets free of cost to the people. Where as there were only 9 Vanaspati ghee mills before the outbreak of the Second World War the number rose to 41 after the War. The four hydrogenated oil mills located in Uttar Pradesh employ about 1200 employees and produce 150 to 290 metric tons of Vanaspati ghee everyday. The units are located at Ghaziabad (2), Modinagar (1) and Kanpur (1). The average annual production of these four plants amounts to about 60 thousand tons.

*Textile Industry* : Cotton textiles, woollen textiles, silk textiles and jute textiles are manufactured in Uttar Pradesh. Textile manufacturing forms the largest single industrial group of the State both in terms of output and employment. Cotton textile manufacturing is by far the largest textile group of the State. There are about 32 cotton textile mills located at Kanpur, Agra, Modinagar, Hathras, Aligarh, Moradabad, Saharanpur, Lucknow, Rampur and Varanasi. Kanpur with its 14 cotton textile mills is the cottonpolis of the state. The first cotton mill in this town was started between 1869 and 1882. The American Civil War gave a great impetus to the Indian cotton textile industry and since then Kanpur became a great cotton trading centre in a dramatic way. Merely a village in the

eighteenth century Kanpur became a storm centre during the first war of India's Independence and, thereafter, it was promptly linked by rail to Calcutta and immediately followed the American Civil War. "Lands covered with the mud huts of camp followers were hastily taken up by the authorities. Commissariat elephants were brought out to push down the frail erections in order to clear space for the bales of cotton which, piled up level with the roofs, had been blocking every lane in the city. At the same time the ordinary country produce of the Doab and Oudh began to pour in here instead of passing along the river."<sup>4</sup> Unlike Ahmedabad the industries of Kanpur are varied and complex. Besides cotton and woollen textile mills the town houses vegetable oil mills, a dominant industry of this town which enjoys a very favourable and ideal location between the Bihar coal-fields and cotton producing Malwa and Punjab plains. Away from the coasts the Kanpur town lacks humidity in its atmosphere hence artificial humidities have been installed inside the cotton mills so that yard and thread do not break every now and then. This mechanical device enhances the cost of production. "Old machinery, low output per worker, lack of mechanization, high cost of power, and transportation changes all go to send up the cost. Modernization and rationalization are the urgent needs of the cotton textile industry in Uttar Pradesh."<sup>5</sup>

The first woollen textile mill of our country was started at Kanpur in 1876 under the name 'Lal Imli Woollen Mills'. Now there are about 14 units of large and medium sizes engaged in the manufacturing of woollen fabrics in Uttar Pradesh. Again, Kanpur leads in this field with two-thirds of the total employed in this industry of the State. Varanasi and Mirzapur are other two important woollen centres of Uttar Pradesh. Small units are also located at Almora, Agra, Allahabad, Bhadohi, Bijnore, Meerut. The carpet manufacturing industry is an offshoot of the woollen industry. Mirzapur has a name in this field while carpets are also manufactured at Agra, Mainpuri and Varanasi.

Four large silk mills providing employment to about 375 persons are located in Uttar Pradesh. The industry with its three units is largely concentrated at Varanasi is reputed for its silken sarees all over the world. Dehra Dun is another silk mill centre. Kanpur however, is the largest knitting centre and employs about 70 per cent of the workers employed in hosiery. At Modinagar a rayon factory has been installed. Kanpur also houses two units which prepare wearing apparel whereas one cordage and twine industry is located at Ghaziabad. After partition most of the jute producing area went

4 As quoted by Spate O.H.K. and Learmonth, A.T.A., *op. cit.*, p. 563.

5 Tewari, A.R., *op. cit.*, p. 70.

over to the former. East Pakistan (now Bangala Desh), whereas almost all the jute textile mills fell to the lot of India. In a bid to grow more jute for these jute mills efforts were made to grow jute in Uttar Pradesh, Bihar, Orissa and Assam besides intensifying the jute production in West Bengal itself. As a corollary to this step jute mills also started coming up outside West Bengal. Uttar Pradesh now has three jute textile mills which prepare sacks for packing sugar. Two largest units are located at Kanpur and the third is located at Sahjanawa in Gorakhpur district.

*Leather Based Industry :* With the highest animal population of India, Uttar Pradesh is naturally to develop a good base for leather goods manufacturing. The locally available raw material (hides and skins) in plenty, along with a huge demand for leather goods like shoes, boots, chappals, suitcases, etc., gave a spurt to leather goods industry. Kanpur and Agra are not only the reputed leather goods producing centres of India but their fame in this field has travelled quite far and wide. Kanpur employs about 80% of the total workers engaged in this industry in Uttar Pradesh. There are about fifty shoe making factories in the State out of which 9 units are located at Kanpur and about 37 at Agra. The shoes are manufactured in cottage scale units in many of the streets and lanes of Agra. There are also about 32 tanneries in the State and 24 of these units are located in Kanpur. Agra, Fatehpur, Mohammadabad (Farrukhabad) and Unnao are other important tannery centres of Uttar Pradesh. Meerut has also emerged as a significant leather goods producing centre. If the number of small scale units is also included, there are about 86 units engaged in tanning and processing of leather in different parts of India. It is estimated that Agra alone produces shoes worth Rs. 2 crores every year. The shoes made in the State have found a good market in foreign countries and especially the U.S.S.R.

*Wood Based Industry :* With increase in population and consequent rate of literacy and for many other purposes the demand for paper and paper board has registered a tremendous rise. This factor also led to the rapid development of impressive technological techniques in the field of paper manufacturing. Now with advances and researches in this field it has been proved that there are a variety of resources which can be gainfully used as raw material in many wood based industries including paper, pulp and paper board. "Although cellulosic fibres in agricultural commodities and agricultural wastes such as straw, jute, grasses, bagasse, cotton linters, etc., form an important source of raw material, about 90% of the

world's requirements of virgin pulp comes from the trees of coniferous and deciduous forests. The availability of raw material, the production process employed and the particular products derived determinate the nature and mix of the raw materials processed."<sup>6</sup>

The paper and pulp industry of the State is situated in its Upper Ganga plain where Saharanpur and Lucknow paper mills employ about three-fifths of the workers employed in this industry of the State. The Dehra Dun paper mill is the only centre of pulp production in the State. Kali and Pilkhuwa (Meerut) centres also manufacture paper. The Meerut plant manufactures cardboard from the bagasse. It is proposed to instal a huge paper plant at Meerut. Kanpur and Allahabad manufacture straw board and paper board. Saw milling centres are located in the Lucknow district whereas Clutterbuckgunj (Bareilly), Saharanpur and Haldwani (Nainital) have also developed saw milling. Matchbox factories have come up at Meerut Cantt., Bareilly and Rampur. Sports goods manufacturing at Meerut is a post-independence development. Some families who had sports goods manufacturing concerns at Sialkot migrated to this town and set up sports goods factories. Hockey sticks, tennis bats, balls, footballs, cricket bats etc., manufactured in this city are now being exported to Malaysia, Singapore, the U.K., and the U.S.A. The rosin and turpentine factories have also been set up at Kanpur, Bareilly, Meerut and Lucknow. These factories totalling a dozen have also started producing paints and varnishes.

*Non-Metallic Mineral Based Industries* : Cement, clay products, pottery, earthenware, glass and glass products are produced from the non-metallic minerals mined mostly in the State itself. The rapid rate of construction activity including the erection of dams, barrages and bridges has led to an ever increasing demand for cement. Churk in Mirzapur district is currently the only cement plant in the State although about half of the cement grade limestone deposits are known to exist in Uttar Pradesh. Two more cement plants are being planned at Rishi Kesh and Chopan. Based on the large limestone deposits and readily available bauxite ore Birla Brothers have established an aluminium plant at Churk which gets hydro-power as a cheap fuel from the Rihand project. The plant has a bright future here.

Glass industry is a traditional and one of the oldest industries of Uttar Pradesh both at small as well as large scale. About 90 per cent of the workers engaged in non-metallic mineral based

industries are employed in glass industry alone. Availability of raw material (silicate sand) traditional skill and a large market in the State, Delhi (Union Territory) and the State of Rajasthan have made Uttar Pradesh the second largest producer of glass in India next only to West Bengal. Lack of cheap power for treating sand for the manufacture of glass has, however, stood in the way of unprecedented rapid growth of glass manufacturing in the State. Agra district with 162 factories has outwitted all other centres in the field of bangle manufacturing. "Ferozabad (Agra district) is the important glass and glass product centre, and the industry has established itself successfully in the face of competition with Japan and Czechoslovakia."<sup>7</sup>

High quality pottery is prepared in the districts of Mirzapur and Bulandshahr. Ghaziabad, Agra and Dansa are other earthenware producing centres. Structural clay products are produced at Bahraich and Meerut. Leaving aside the Uttar Khand and Kumaon tracts, brick kiln and tiles are manufactured in almost all districts. Pottery and ceramics of Khurja and clay modelling of Allahabad and Lucknow have claimed fame all over the country. Marble products, especially decoration pieces including the replicas of the Taj prepared at Agra, adorn millions of cornices all over the world. Imitation jewellery and beads prepared at Agra have also niched their name among the ornamentation pieces.

*Precision Instruments Industry* : A precision instrument laboratory has been set up by the Uttar Pradesh Government at Lucknow. Water meters, stethoscopes and binoculars are the important precision instruments manufactured here. Now even the industrial jewels are being produced at this centre. These are widely used in water meters, watches and power measuring equipment.

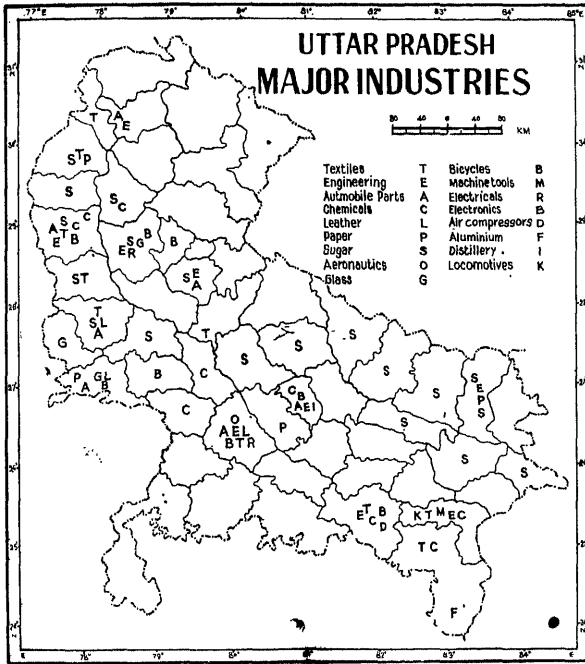
*Engineering Industry* : The engineering industry consists of about six dozen units employing about 11 thousand workers. Electrical machinery, non-electrical machinery, electrical goods, agricultural equipment and miscellaneous engineering goods are produced in these units.

Agricultural implements are manufactured at Bareilly, Lucknow, Kanpur, Rampur and Ghaziabad. Machine tools, wood working equipment and other tools are turned out at Agra and Kanpur. Kanpur, the leading centre of textiles in the State, also produces textile machinery and other accessories. General and jobbing engineering is quite widely spread over the state. Lucknow, Kanpur,

Ghaziabad and Meerut, employing about 60 per cent of the workers in this industry, are the leading centres in this field. Radiators and fans are the important goods turned out by the electrical goods industry which has its concentrations at Kanpur, Bulandshahr and Ghaziabad. Other electrical accessories and insulated wires are produced at Agra in about half a dozen factories. Recently, Heavy Electricals have been established at Ranipur near Haridwar. Kanpur, Ghaziabad and Meerut also manufacture bicycles, tricycles, rickshaws and perambulators. About half of the State's cycles are manufactured at Kanpur. Jhansi, Lucknow and Gorakhpur have railway workshops among which Gorakhpur has the largest railway workshop. Aeronautical engineering has also developed at Kanpur. Aeroplanes are repaired at Allahabad and Lucknow. A number of roadways and private workshops repairing buses, trucks, cars, jeeps, auto-rickshaws, etc., are found almost in all big towns.

*Chemical Industry* : There are about three dozens of large scale chemical units although the number of medium, small and cottage scale units is innumerable. Some of the chemical plants are the outcome and byproducts of other industries. For example, alcohol, spirit, methylated spirit and wine manufacturing is closely associated with sugar industries. Turpentine, rosin and matchbox industries are wood and forest based industries. Apart from these industries which have already been described there are heavy chemicals, fertilizers, fine chemicals and pharmaceuticals, soap, plastic material, rubber and rubber products manufacturing plants also.

There are eight industries that manufacture heavy chemicals in the State. Seven such units are located at Kanpur and one is located at Ghaziabad. In the auxiliary units of J.K. Rayon Mills, Kanpur about 25 metric tons of sulphuric acid is produced daily besides producing 5 metric tons of carbon bio-sulphide everyday. The Sahu-Jain Chemicals at Varanasi have also started producing large quantities of Soda ash and ammonium chloride. Washing as well as toilet soap is produced in about a dozen large scale units located at Kanpur, Agra, Ghaziabad and some other centres. This industry, especially washing soap manufacturing, has swarmed the city of Meerut as a small scale and household industry. Every year large scale units produce about 40 thousand quintals of soap whereas the small scale units produce double the quantity. "In spite of a number of oil mills in the State, the soap industry has not developed in the large scale sector."<sup>8</sup>



Chemical fertilizers are produced at Varanasi, Lucknow, Moradabad and some other small centres. Varanasi is the largest centre which employs about 80 per cent of the workers engaged in the chemical fertilizer industry of the State. About 50 per cent of the factories manufacturing fine chemicals and pharmaceuticals are located at Lucknow (10) and Kanpur (5). The State as a whole has about 32 such units. Jhansi and Saharanpur are other important centres engaged in this economic activity. The largest unit, however, is located at Jawalapur near Haridwar. Kanpur, Meerut and Agra manufacture rubber goods whereas a synthetic rubber plant has been installed at Bareilly. Two plastic manufacturing units at Kanpur, one government owned opium factory and one paint factory, are the other chemical concerns of the State. There is a large scope for development of the chemical industry as the demand for chemical fertilizers, paints, varnishes, plastic goods, synthetic rubber goods, matches, soap and pharmaceuticals is increasing at a fast rate consequent upon the increasing rate of population and urbanization.

### **Small Scale and Cottage Industries**

The State has a significant place among the small scale and cottage industries of India. Since time immemorial the region had its name for its handicrafts. The history of Indian Cottage industry and handicrafts is as old as that of the mankind. The handicrafts from India had a ready market in ancient Rome and Egypt. In one of his works Thornton states : "When the people of Greece and Italy, the fountainheads of European culture and civilization led a wild life, then the skilled artists of India produced goods of wonderful quality." The Pali, Jain and Buddhist literature, apart from ancient Hindu literature, are replete with instances pointing to quality goods and especially the attractively designed and painted cloth produced in India. Kausheyak, a cloth manufactured for highly sacred occasions used to cost Rs. one lakh in ancient times. The great Sanskrit bard, Kalidas, has showered bouquets of tributes and praise on the Hans Chhinhit Shrukul, the cloth used in wedding ceremonies. Another great poet, Ban, spoke of the heap of clothes made of silk, wool and cotton fibre, fine as the snake skin in rainbow colours at the wedding occasion of Rajyashree. Historical records stand as witness that five millenium before Christ Egypt used to import the finely knit malmal from India to cover mummies, i.e., dead bodies. It was the sheer selfishness of the British in India which led to the rapid decay and downfall of our handicrafts. Still, "many of the industries have remarkably sus-

tained and withstood the adversities of the last two hundred years of competition with the machine made goods, and, in fact, with the State help and an expanding market in the West, some have been improving their position, mainly those which have a special advantage in the production of those goods where intricacy of designs and fine art exceeds the utility."<sup>9</sup>

Handloom industry is the most important and traditional cottage industry of Uttar Pradesh. For many centuries the industry played a significant role in the rural economy. Apart from absorbing manpower during idle seasons the industry rendered stability to the agricultural economy of the villages. Even at present the number of persons employed in handloom weaving exceeds the number of workers employed in mills. Meerut, Deoband, Dhampur, Sikandrabad, Tanda (Faizabad), Varanasi, Maghar (Basti), Barabanki, Gorakhpur, Amroha, and Mubarakpur (Azamgarh) are the important cotton handloom weaving centres of Uttar Pradesh. Varanasi, Bilaspur and Sandila are renowned for silken handloom. The woollen sheets and 'namdas' prepared at Almora and Bageshwar are known all over northern India. The carpets and druggets prepared at Mathura, Mirzapur, Bareilly, Agra and Aligarh are sold in markets at home and abroad. Lucknow has been a renowned centre for Chikan work right from the days of Mughal emperors. Agra and Varanasi are known for Zari work. Gold thread industry of Varanasi has its own name and place. The Varanasi embroidered sarees, gold thread *dupattas* (women-head scarfs) and Zari worked clothes are sold in many markets abroad. "The chief centres for luxury trades and for arts such as brassware, ivories, silks and gold and silver thread embroideries and jewellery, and for the finer craft-produced textiles such as shawls and printed calicoes, are Agra, Varanasi and Lucknow. The associations are clear : the patronage of the extravagant Court of the Nawabs of Oudh at Lucknow, the tourist attractions of Agra, the great flow of pilgrims to Varanasi."<sup>10</sup>

Brass and bronze utensils, locks, scissors, iron boxes, glass and Chinaware, oil extraction, Jaggery ('gur') and brown sugar ('khandsari'), wood work, cane work, furniture, scents and 'attar' are other small scale and cottage industries of Uttar Pradesh. Varanasi and Muradabad are known for the production of brass, steel and bronze utensils. Engraving is also done on utensils in an attractive way. Mirzapur, Shamli, Hathras, Farrukhabad, Atrauli and Hapur are also reputed for brass utensils. Baraut (Meerut) is

9 Rab, M.A., *Cottage and Small Scale Industries of U.P.*, Kanpur, 1952, p. 1.  
10 Spate, O.H.K., and Learmonth, A.T.A., *op. cit.*, p. 559.

renowned for the production of iron pans throughout India. Muzaffarnagar, Najibabad and Labar (Meerut) have a name for the manufacturing of indigenous blankets in Uttar Pradesh. Good quality furniture is prepared at Saharanpur and Bareilly. Wood carving and engraving is also carried on at Saharanpur. Scents and 'attars' are prepared at Lucknow, Jaunpur and Kannauj. Moradabad is known for the preparation of combs from horns. Good quality brushes are made at Agra, Kanpur and Meerut. Dehra Dun and Bareilly are known for cane work and production of umbrellas. Beautiful wooden toys are produced at Lucknow and Varanasi. Aligarh manufactures about 70% of the locks of our nation. Meerut is renowned for the manufacturing of scissors. Surgical instruments are produced at Agra. The musical instruments, especially the 'tablas', harmoniums, flutes, 'biguls' and 'dhol's' are prepared at Meerut, Kanpur and Lucknow. The instruments needed for orchestras and bands are produced at Meerut. Though many handicrafts and artistic skills of Uttar Pradesh have saved themselves from complete extinction yet, "the beautiful handicrafts of U. P., whether the metal work of Moradabad or the Zari and silk work of Varanasi, have been permitted to deteriorate. The Chikan work of Lucknow has become not finer but grosser. The 'attar' industry of Kannauj and Lucknow which could have been expanded easily and profitably has also been stagnant, despite a certain amount of export orientation that some people have tried to give it. It is not as if quality had been sacrificed for the sake of expansion of the quantity of production. Both quality and quantity have deteriorated when one makes a comparison with similar activities or handicrafts of Kashmir or Gujarat or Bengal".<sup>11</sup>

### **New incentives**

The Government of Uttar Pradesh are offering many concessions and subsidiaries for the development of industries in the state. Besides developing the existing industrial centres many new industrial townships and estates are being established. The Uttar Pradesh Financial Corporation is extending assistance and soft loans for the modernization of old machines and plants as also for the setting up of new factories and plants. In this respect top priority is given to export and defence oriented industries. In the backward and mountainous areas special grants and subsidies are being provided for the establishment of small scale and medium sized industries. The Uttar Pradesh Small Scale Industries Corporation supplies the raw

<sup>11</sup> Singh. S.K.; *op. cit.*, p. 20,

materials at cheaper rates at its centres located at Naini (Allahabad), Varanasi, Meerut, Agra, Bareilly Ghaziabad, Gorakhpur, Moradabad, Bhadohi, Ranikhet, Lucknow and Mirzapur. The development branch of the Directorate of Industries is giving assistance on priority basis to the concerns like electrical, mechanical, glass and ceramics. The surcharge on electricity is lesser in Uttar Pradesh as compared to other States. Still the factories consuming more than 100 Kwh are being given 15 per cent concession.

In the year 1974-75 against a target of 640 handlooms only 252 were brought under the banner of the co-operative movement. By March 1975 five designing centres were started to apprise the weavers of new and the latest designs as well as patterns. The next year four of these centres were converted into designing-cum-production centres.

Leather, leather goods, machine tools, non-ferrous industries, agricultural implements and engineering works like foundries, 'gur', 'khandsari', cycles, cycle parts, glass and glass bangles, 'attar', dyeing and printing, etc., are the cottage and small scale concerns. In the year 1973 about 3,873 such units were registered which gave employment to 1,28,435 persons and produced goods worth Rs. 312.07 crores. In 1975 the number of such units reached 33,831 and they offered jobs to about 2 lakh persons. Handicrafts were encouraged and such units produced goods worth Rs. 0.46 lakh. About 30 persons were trained in this skill and nine handloom co-operative societies were started.

To remove the economic disparity, village industries projects were started in five districts of the State during the Third Plan. These projects were injected in villages having less than 15,000 of population each. Under this plan the villagers are given soft loans, grants, technical training and other assistance. By March 1975 new such 4,822 units were started in the districts of Almora, Ghazipur, Saharanpur, Jhansi, Ballia, Rai Bareli, Fatehpur, Mathura, Unnao, Moradabad and Deoria. This step benefited 16,200 persons. To develop 2,175 such units Rs. 115.95 lakh were granted in the form of soft loans.

## *Population*

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Uttar Pradesh, covering about 9 per cent of our country's total area accommodates nearly 17 per cent of its population. The fourth largest State, according to areal coverage, Uttar Pradesh is the most populous State of India. According to the 1971 census, 8,83,41,144 persons lived in this State covering an area of 2.94 lakh sq. kms; about three times the total area of Assam State and all the nine union territories of India. Thus the pressure of its teeming millions comes to little over 300 persons per square kilometre as against the all-India average density of 155 persons per square kilometre. This State has attained prominence on the population map of India because of its higher density, and the largest numbers in comparison with all other States. This swarming sea of humanity resides in 1,12,624 villages and 334 towns. Twenty-two towns have a populace of more than one lakh each. There were also 12,720 unpopulated and deserted villages.

*Distribution :* About 83.1 per cent of the people of Uttar Pradesh live in villages and nearly 80 per cent of the total population of the State is engaged in agriculture. Consequently, the agglomerations of rural settlements are found in areas which because of higher

fertility, plain topography, sufficient rainfall or better means of irrigation and high percentage of culturable land combine to make the physical environment most conducive to farming and allied pursuits. "The large population and its spatial distribution, density and occupational structure reveal that here man has been not only the creator of cultural landscape but also a basic constituent of the eco-system of the region. The regional distribution of population and its growth have been mainly related to the agricultural economy and public health conditions in the various parts of the region." The agriculture based economy, as it exists in the State, is mainly dependent upon water and so far the availability of ground as well as accessible underground water has held the key to population concentration and congestion in rural Uttar Pradesh. The Ganga-Yamuna Doab with abundant and perennial supply of water coupled with suitable terrain and alluvial fertility has ever attracted people from areas unfavourable to farming. "So close is the connection between availability of water and population density that even the marginal differences of irrigation facilities are immediately reflected in the variation of population density." Meerut district with 55.8 per cent of its net area sown irrigated shows a density of about 730 persons per square km. whereas it quickly falls in Saharanpur with only 27.1 per cent of its net area sown under irrigation.

In eastern Uttar Pradesh it is the annual amount of rainfall that determines the population distribution. Areas with 120 cms. of annual rainfall and more (provided other favourable conditions are available) are areas of dense population on the fringes of southern plateau falling within this State. Undulating topography, truancy and precariousness of precipitation, poor irrigation facilities, low productivity of the soil, usual shortage of drinking water and advancing sand dunes keep the density of population very low. Inadequacy and relatively costlier means of transportation and communications still further add to the sparser distribution of population. The northern hilly region because of limited area for cultivation, harsh climatic conditions, lack of means of transportation, want of irrigation facilities, rugged terrain, poor soils, soil erosion, swampy and marshy ground in the Tarai and unattractive conditions for human habitation result in sparsely and scattered distribution of population. Unhealthy and malarial conditions also work as disincentives to human habitations. In earlier decades the relation of population distribution with agriculture was highly pronounced but now factors affecting urbanization and health are continuously

1 Singh, U. and Verma, R.V., *op. cit.*, p. 137.

2 Tewari, A.R., *op. cit.*, p. 85.

assuming more and more significance in this respect. In a nutshell, "agriculture being the principal occupation of the rural population and the agricultural value of different tracts (which is determined by the fertility of soil, rainfall conditions, availability of irrigation facilities and so on) are linked together."<sup>3</sup>

*Growth of Population* : The State of Uttar Pradesh has shown a phenomenal growth of population right from the beginning of the present century. The total population of the State which stood at 48.6 million in 1901 grew to 88.3 million in 1971 meaning thereby an increase of 39.7 million or an increase of about 55.1 per cent. It was only during the earlier two decades that war conditions and epidemics checked the phenomenal growth of population. These natural checks not only checked the further growth of population but, in fact, brought down the population figures from 48.6 million in 1901 to 48.2 million in 1911 and 46.7 million in 1921. During these two decades the total population fell by about 4.02 per cent. Since then the population curve has shown a steep rise and exhibited a slight slackening during the 1941-51. This slackening of the gradient of the population curve was the direct result of the partition which led to massacre, starvation and migration of population. But, thereafter, the curve assumed a vigorous trend and touched the mark of 19.8 per cent during the 1961-71 decade whereas in the earlier decade the number of people increased by 16.7 per cent only. But it was heartening to note that the increase by 19.8 per cent in the State during 1961-71 decade was against the all-India figure of 24.8 per cent, a more alarming and disappointing figure for our planners and especially for our family planning (now termed as family welfare) drive. The curve of urban population showed a much steeper upward gradient than its rural counterpart. No doubt, the total urban population had increased by about 77 per cent as against about 50 per cent increase in the rural population. Yet, the rate of urbanization in the State as a whole has been slow. At the beginning of the current century about 11.09 per cent of the people of Uttar Pradesh consisted of city dwellers. This percentage increased to only 12.9 in 1961 and 14.0 in 1971. This shows that as a result of wave of industrialization, consequent upon our planned development, the rate of urbanization has picked up in this agriculture dominated State after the mid-fifties. In 1961 there were 267 cities and towns out of which 17 had a population of more than one lakh each. In 1971 the number of urban centres grew to 334 and 22 cities had a population of more than one lakh each. The

twenty-two cities are the industrial, educational and cultural hubs of the State, namely, Lucknow, Kanpur, Agra, Allahabad, Varanasi, Moradabad, Rampur, Bareilly, Shahjahanpur, Dehra Dun, Saharanpur, Meerut, Aligarh, Mathura, Jhansi, Gorakhpur, Mirzapur, Firozabad, Ghaziabad, Muzzaffarnagar, Farrukhabad and Faizabad.

About 55 per cent of the rural population of the State lives in 62 per cent of the total number of villages. The size and pattern of rural settlement depends upon the physical environment. The uniformly distributed rural settlements in the Ganga-Yamuna Doab owe their existence to fertile soils, adequate irrigation facilities, plenty of bangar land, well-developed means of transport and dominance of the Jat community, the toiling and true tillers of soil. The hilly districts, because of undulating topography, scattered and scanty level flats of fertile soils and poor resources of water, do not provide environment for the development of big and compact villages and, therefore, people live in small and scattered villages. The predominance of forests, marshes, swamps and seasonal floods are responsible for uneven distribution of rural settlements. "In general, the unpopulated villages are a pronounced feature of the Tarai tract due to frequent desertion of sites owing to floods and other causes and the migratory cultivation by the aboriginal tribes. On account of over-flooding and changes in river courses, villages are mostly hamleted and are often located at the points of geographical advantage, such as embankment and river bluffs etc."<sup>4</sup>

In Avadh and Rohilkhand the villages located above the flood plain are mostly evenly distributed. In the Yamunapar tract the badland topography affords few sites for rural settlements. The large ravines are almost without villages with the exception of few scattered hamlets here and there. The bangar tract of Rohilkhand carries comparatively larger villages on its surface. Almost every villages has small hamlets at a distance of few hundred metres. "They are usually named after the main village, but with the addition of words like Mundia, Muafi, etc., such names as Alirazpur Muafi and Sherpur Muafi (Tehsil Bilari of Moradabad) remind of the fact that certain estates of the royal landlords were revenue free holdings. These small-sized satellite sites have usually been inhabited by the tenants and agricultural labourers who belong, in most cases, to the lower castes."<sup>5</sup> The Avadh plain accommodating about 20 per cent rural population of the Upper Ganga plain is dotted with small villages, though the villages are semi-compact

<sup>4</sup> Singh, U. and Verma, R.V., *op. cit.*, p. 143.

<sup>5</sup> *Ibid.*, p. 143.

in nature. The hamlets lying outside the periphery of rural settlements are relatively younger. The names of these hamlets bear either the names of their founders or dominant castes as their prefix to suffix. On the whole villages accommodating more than ten thousand people each carry only 0.5 per cent of the rural population of the State. Such large villages are found in the western part of the Ganga-Yamuna Doab. Badli (Meerut), a village in Mr. Charan Singh's Parliamentary constituency, is perhaps the largest (population-wise) village of India. This village had a population of about 30 thousand about a decade ago and in this respect excels many of the Indian towns, cities and small towns. On the whole, the unfavourable environment fosters small and scattered villages in hill districts where the average population of each rural settlement is less than five hundred persons. Moreover, the canal irrigated tracts have comparatively larger villages than well irrigated tracts. This is the reason responsible for overcrowded villages in Meerut.

Like all other rural settlements of our country the village in Uttar Pradesh has both been a physical as well as cultural entity. Cultural factors provide means of sustenance whereas the physical pattern of the site provides a mould for pattern formation of the settlement. "The settlement has also preserved the various layers of social fabric with provision for group segregation within the village territorial limit and in consonance with the need of the time. The village is seldom an isolate, it is an essential part of a large territorial unit developed in the process of land occupation."<sup>6</sup>

This rate of urbanization has been very slow in the State, in spite of a 77 per cent increase in the number of city dwellers since 1901 as only 14 per cent of the population lived in cities and towns in the year 1971. This low percentage of urban population reveals the extremely low speed of industrialization in the State. A glance over the map showing the distribution of town dwellers reveals that the centres of high industrial activity are the most urbanised sites. This also reveals a close relationship between industrial employment and concentration of urban population. The mountainous, Tarai, Bhabhar and revine-infested tracts are least urbanised because of quite vivid reasons of lack of means of transport, want of flatland, absence of industrial infrastructure, marshy-swampy land, unhealthy and malarial conditions. The heaviest urban concentration is found in the Doab region where towns and cities are not only closer to each other but also form a continuous belt. In other parts of the State the towns show a scattered pattern. Even the two top most and largest cities of Lucknow and Kanpur also stand

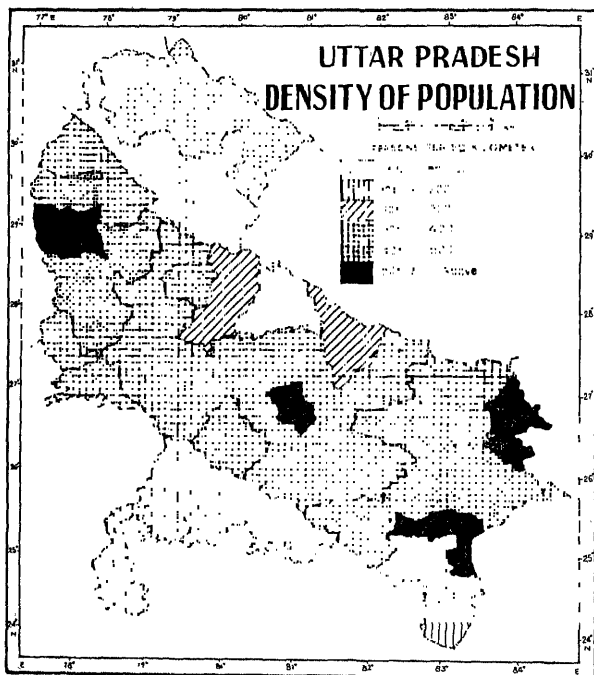
isolated. However, "it is quite surprising that the most urbanized districts have the least number of towns in them and the reason for the high degree of urbanization is the overgrowth of the district towns themselves. A glaring example of this phenomenon is offered by Lucknow and Kanpur, the two most urbanized districts of the State which have completely eclipsed the origin and growth of other towns in them."<sup>7</sup> Kanpur is the highly industrialized town and it has woven a big hinterland around it and, therefore, it has restricted the number of towns developing around it. In western Uttar Pradesh the agro-based industries like sugar mills, oil mills, cotton textile mills, handicrafts have their bases in rural areas and, therefore, many cities and towns have emerged in this agriculturally prosperous area. The dispersed nature of industries and factories have permitted the growth of town in two belts in this western part of the State, namely, (i) Aligarh-Hathras-Mathura-Agra-Farozabad, and (ii) Ghaziabad-Hapur-Meerut-Muzzaffarnagar-Saharanpur-Haridwar and Dehra Dun.

Keeping in view the current growth rate of population it is surmised that by this time the population of this already populous State might have touched the hundred million mark. But the forceful family planning drive carried out during Emergency is also likely to put a check on the future growth of population.

*Sex Ratio and Literacy* : In accordance with the Census figures of 1971 there were 4,70,16,421 males and 4,13,24,723 females in the entire population of the State. In other words, the sex ratio, i.e., number of females to 1000 males comes to about 879. The sex ratio touched its maximum mark (937 females per 1000 males) in the year 1901. Since then the sex ratio has been continuously declining in the following decades and it steeply fell to 915 in 1911. "Natural calamities are responsible for this sharp decline because people, particularly the females, live at such a low level of nutrition that they do not have reserves of energy to meet the assaults of death and pestilence. Whenever, therefore, there is an outbreak of some epidemic, the female population is affected more and a decline in female ratio is the result."<sup>8</sup> The sex ratio falls rather steeply in urban areas where lack of physical exercise, limited supply of fresh air and sunshine, dirty sewerage littered surroundings, polluted atmosphere, insects, infections and a relatively low level of nutrition among the womenfolk offer a heavy death toll during epidemics. On the other hand, the womenfolk in the

7 Tewari, A.R., *op. cit.*, p. 93.

8 Singh, S.K., *op. cit.*, p. 17.



countryside, especially those hailing from farming and toiling classes, are immune to such epidemics and, therefore, rural areas show a higher sex ratio. Moreover, now in times of unemployment men go to the industrial towns in search of job and thereby reduce the sex ratio in urban areas and accelerate the ratio in rural areas. It is surprising but true that the districts with the highest and the lowest sex ratios lie in the mountainous tract of the State. Garhwal has the highest sex ratio as most of the Garhwalis come down to the plains and leave their womenfolk in their villages to look after their petty holdings. In the Jaunsar Bawar tract the practice of polyandry, which is now on decline, has also its effects on the sex ratio.

According to the 1971 Census the literacy percentage in Uttar Pradesh was only 21.7 per cent as against the all-India figure of about 29 per cent. This percentage has increased from 17.6 per cent in 1911. There were 1,91,73,970 literate persons in the State out of which only 43,61,695 were women meaning thereby that among the literate persons only 23 per cent were women. The district of Dehra Dun with a literacy rate of 43.7 per cent topped among all the 55 districts of the State. Because of the location of Rashtriya Sainik Akademi, Forest Research Institute, Oil and Natural Gas Commission, best public schools of the country, a military cantonment, Survey of India organisation and abode of many retired personnel Dehra Dun is likely to lead in literacy rate for many years to come. Bahraich district, situated in the Tarai tract with all its disadvantages related to natural environment and economic development has the lowest (12.2 per cent) rate of literacy. In the district of Kanpur, Lucknow, Nainital, Garhwal and Pithoragarh more than 30 per cent people are literate.

With the exception of Madhya Pradesh, Rajasthan and Jammu and Kashmir the growth of literacy in Uttar Pradesh has been the lowest in our country. The future of literacy here also seems to be bleak, because while about 85 per cent children of 6-11 age group are claimed to be school going, only 29 per cent falling in the 11-14 age group are schoolgoers. No doubt, the per capita expenditure on learning in the State has risen from Rs. 1.15 in 1951 to about Rs. 5 at present, yet "if one takes into account factors such as the capital expenditure on the infrastructure for providing education, and the rising price levels, the real growth of per capita expenditure level on education would appear to have gone up, from Rs. 1.15 per head in 1950-51, to just Rs. 2 per head today."

*Working Population and Per Capita Income :* In accordance with the Census data of 1971 out of the total population of the State only 2,73,34,455, i.e., 30.9 per cent persons were classified as workers. Out of this number 2,45,62,058 were male workers and only 27,72,397 were female workers. It sounds quite strange to find such a small fraction of female workers in the State of farmers, where womenfolk work shoulder to shoulder with their menfolk in farms and fields with the mere exception of ploughing the fields. Moreover, when we find lakhs of women from Uttar Pradesh (popularly termed as *Purbanis* in the western part of the country) working on roads and building sites in Punjab, Haryana, Delhi, Himachal Pradesh, etc., it is unbelievable that the women living within the frontiers of their home State are idle and do not participate in active economic pursuits. In fact, our method of enumeration of workers during Censuses is wrong and defective. For a Census enumerator the women who work on others' fields and that too to earn wages are classified as agricultural labourers. At the height of all this how about those women who cleanse the cowdung, transport it to farms, scatter it in the fields, actively participate in the thinning, weeding, harvesting and threshing operations in their own fields besides running the household ? It is a colossal mistake committed all over the country and we are doing great injustice to our mothers and sisters who, since ages, have been working shoulder to shoulder with their toiling and tiller menfolk and have been adding real economic gains to the domestic economy of each household. Looking from the point of view of the dignity of labour and hours put in working they are probably doing much more work than our women officegoers and others involved in the fields of teaching, medicine, nursing, social service etc. Their misfortune is that they not get their wages in currency on the every first of each month although in most cases, taking the entire domestic economy, more than 50 per cent economic efforts have been put in by our illiterate, ignorant, innocent and ever exploited mothers and sisters. The next Census operations are drawing nearer and our organisers and enumerators should give due thought to this problem and devise ways and means to collect correct data from the field so that the analysis based on this data presents a true picture. If we do not include the economically gainfully employed women amongst workers then the number of non-workers swells to more than 61 million in a total population of 88.3 million. This seems alarming as to how such a large number of non-workers are being supported by a fraction of workers. Had this been the real case, the State would have been nothing but a naked picture of want, hunger, disease, etc. ? If we find that many

industries are running in the State, many roads, canals and buildings are being built in the State and many other facilities are being provided in the State then the Capital and investments must have poured partly from the savings of the people. But if such a large chunk of the populace consists of non-workers and idlers, there could be no savings and no investments. In that case, Uttar Pradesh could never be the granary of India and it should have, if not solely, then for about 75 per cent of its bare necessities of food and clothing depended upon the mercy of other States. It is high time we mend our enumerating modes to our own benefit at the earliest. However, in accordance with the Census figures, about 30.09 per cent of the total number of people are engaged in economically gainful avenues. About 67 per cent of the working force is directly employed in agriculture and carry on their agriculture on their own holdings. About 17 per cent of the working population consists of agricultural labour. This speaks of the colossal problem of landless agricultural labour. About 6.7 per cent of the working populace is engaged in the primary economic pursuits of livestock breeding, fishing, and plantation. Only about 4.5 per cent of the working people pursue the professions of mining and quarrying. Mineral deposits being quite insignificant, most of the people are engaged in stone and limestone quarries. Strangely enough, only 2.8 per cent of the working force of this most populous State is involved in industrial activity as against India's average figure of 4.2 per cent. Industrial activity contributes only 10 per cent to the State income as against 18 per cent for the whole nation. The factory employment for every 10,000 people of Uttar Pradesh is only 47 whereas it stands at 92 for the entire country. The productivity per industrial worker in Uttar Pradesh is also low. How alarming is it that a State carrying about 17 per cent of the populace of the entire nation has invested only 7 per cent of its total investments in manufacturing. The factory output and employment for Uttar Pradesh is also low, approximately 7 per cent of the total factory output and total factory employment of our country.

The per capita income of this so-called 'Heartland' of India is only 84 per cent of the per capita income of India. Today the per capita income of Uttar Pradesh is lower than that of any State of the Indian Union except Bihar, Manipur, Orissa, Rajasthan and Tripura. The story told by these figures is quite sad but it becomes quite alarming when viewed in the historical perspective. At the time of launching the First Five Year Plan in 1951 the per capita income of this State was 5 per cent higher than the national per capita income. As against the average Indian per capita income of Rs. 248 it was 260 in Uttar Pradesh. Another alarming fact

about the State is that out of 58 poorest districts of our country 22 districts, i.e. 38 per cent, are located in Uttar Pradesh alone. This stark but bleak reality is because of a rapid rise in the State's population.

The so-called 'heartland of India' and 'real Hindustan', Uttar Pradesh, is one of the economically sluggish and underdeveloped States. Many of the tracts, especially those falling in Bundelkhand, Vindhyachal, Uttar Khand, Tarai and Bhabar tracts, show much lower economic standards even according to Uttar Pradesh standards. "The extreme poverty of these three regions is reflected in their high percentage figures of rural population dependent on agriculture (almost invariably above 90 per cent and in one district as high as 98.5 per cent). Percentage figures of the unemployed are high here, and the per capita consumer expenditure is as low as Rs. 21 per head per month in the rural areas." Only 2 per cent of the ruralites have the privilege of spending about Rs. 55 per head on themselves. The poorest households numbering about 12 per cent of the village dwellings have a per head monthly expenditure of Rs. 11 only. The State which has about 14 per cent of the animal population affords very poor levels of milk nutrients. An average villager spends about Rs. 1.6 per month on milk whereas an urbanite spends about Rs. 2.8 per month on milk. Per capita monthly expenditure on clothes in rural as well as urban areas is merely Rs. 2. The State is plagued with a horrible and colossal unemployment problem. The number of unemployed persons, which stood at one million at the time of the initiation of economic planning, ushered to create more and more employment opportunities alongwith rapid industrial and agricultural production, has today touched the three million mark. Whereas, on the one hand, our planners, leaders, economists and administrators are to be blamed for the bleak picture and stark reality because of ill planning, misplanning, expenditure on non-growth economic pursuits, maladministration, favouritism and nepotism the people themselves are no less to be blamed. So long as they do not shun the idea of having larger families and prefer to have small families the problems of unemployment, want, hunger, poverty and disease shall continue to assume serious postures. Moreover, our educated youngmen shall have to understand the real meaning of dignity of labour and only Gandhian ideals and programmes can afford them the opportunities of earning their bread comfortably apart from rendering a remarkable service to our poor, illiterate and down-trodden brethren.

People belonging to six religions live in this State. In order of the number of their followers these six religions are Hinduism,

Islam, Sikhism, Christianity, Jainism and Buddhism. Most of the Buddhists are now found in areas bordering Tibet and Nepal. Not to speak of religions alone, but Uttar Pradesh has ever since been a centre of attraction for many people of different communities from other parts of India. Dr. Zakir Hussain, the third (and First Muslim) President of India, hailed from an Afghan family which had settled in Farrukhabad for many centuries. Pandit Govind Vallabh Pant (one of our ablest and strongest Union Home Ministers), belonged to a family that, after migrating from Maharashtra, settled down in Garhwal a few hundred years ago. The family to which our first illustrious Prime Minister, Pandit Jawahar Lal Nehru, and our third Prime Minister, Mrs. Indira Gandhi, belonged shifted from Srinagar (Jammu and Kashmir) to Allahabad. Similarly, Kunzrus (Pandit Hriday Nath Kunzru's family) and Saprus (Tej Bahadur Sapru's family) also migrated to Uttar Pradesh from Srinagar long long back. Gangulis (Aruna Asaf Ali's parental family) and many other Bengali sects came from Bengal to settle down in Uttar Pradesh. A large number of Punjabi families and Andhra families have also now settled down in Uttar Pradesh. The Malayali Namboodri Brahman families have fully identified themselves with the priestly class of Badrinath and Kedarnath. Today, all these families have lost their regional and parental identities in the vast Indianism of Uttar Pradesh and have become the part and parcel of the fabric of mother India.

*Education and Public Health* : About 16.5 per cent of the entire student population of our country is educated and trained in Uttar Pradesh. The total number of students of all categories which stood at about 130 lakh in 1968-69 has now crossed the 160 lakh figure. Keeping in view the constitutional provision of providing free and compulsory primary education, more and more stress is being laid on the expansion and development of Primary education. During the first three plans 66 per cent of the total outlay invested in education was on Primary education whereas Secondary and University education received 15 per cent and 9 per cent of the total expenditure incurred on education respectively. About 10 per cent of the total investment on education was on the training of teachers. To bring about far reaching results conforming to the ideals of real, well meaning and much needed improvements in the field of education three different Directorates for Higher Education, Secondary Education and Primary Education have already been created during the Fourth Plan period.

In the year 1945-46 the State had 1,676 Senior Basic Schools but now their number is touching the ten thousand mark. The number

of students attending these schools has swelled to about 25 lakh as against only 1.40 lakh in 1950-51. But, keeping in view the total population of the State, this number is quite insignificant and these are only enrolment figures, no authority has gauged the number and fate of a large number of drop outs. To increase the teacher-taught ratio from 1 : 53 to 1 : 47 as also to stop the drop outs in Junior Basic schools about 1130 new Junior Basic Schools were opened in the State. Moreover, about 30 thousand teachers were appointed fresh in these schools. With regard to Secondary education the condition has considerably improved but a lot remains to be done. The number of such schools has risen from mere 442 in 1945-46 to about 3600 at present.

In the field of higher learning this most populous State of India had only 40 degree colleges and six universities at the initiation of the First Five Year Plan. Now the State has 357 Degree colleges and 17 universities. The number of universities is the largest here in the country as a whole. Among these universities the Engineering University, Roorkee, Agricultural University, Pant Nagar, Sanskrit Vishwavidyalaya, Varanasi and Kashi Vidyapeeth have rendered yeoman services in the field of agricultural development, industrial incentive and cultural renaissance. Other 17 universities are located at Lucknow, Allahabad, Agra, Varanasi, Aligarh, Gorakhpur, Kanpur, Meerut, Nainital, Shrinagar (Garhwal), Jhansi, Faizabad and Bareilly. The Guru Kul Kangri at Haridwar is also seat of higher learning like the universities.

In the field of public health whereas the per capita expenditure was only Re. 0.51 in 1950-51 it rose to Rs. 1.55 in 1960-61 and is now about Rs. 5.13. But, as already stated, the condition of medical care and public health is quite unsatisfactory in the State. "For every 100,000 population there are only two dispensaries and hospitals, and 29 beds available. There is only one doctor for 8,500 persons. Only 2 per cent of the villages can boast of a qualified doctor."<sup>10</sup> The condition is still worse in the mountainous region, the Tarai-Bhabar tracts and the ravine infested badlands. There, the people are stooped low in superstitions and many of the ailments are attributed to bad spirits and bad omens. Many lose their lives at the hands of quacks, priests and other such medicants and persons behaving and dealing in the deliverance of evil spirits. The real aim of medical aid is not to treat a patient but to prevent the occurrence of disease in human body. That is possible only if our surgeons and doctors, especially those working in hospitals, dispensaries, Public Health Centres and medical institutes inculcate

a spirit of social service in them. They must look for a healthy, congenial and hygienic atmosphere within their jurisdiction. Those found responsible for the spread of dirt, filth, refuse, night soil, etc., in streets, lanes, parks and public places must be brought to book. Similarly, persons profiteering by spreading superstitions among our rural people, especially those belonging to remoter parts, should be exposed. The refuse, etc., which we find littered in our lanes can work wonders if it is dumped in the cowdung pits and decomposed to add to the quantity as well as quality of compost manure. But this is a two-way traffic and can be arrived at if real social workers like Mahatma Gandhi come in the field and persuade everyone not only to perform his or her own duty towards one's self but also discharge the duties towards society and nation at large, ceaselessly and honestly. If our rural folk are medically examined on preliminary lines only atleast once a month by the personnel of the health services, about three-fourth of the disease can be prevented. The scheme of medical manthan launched, a couple of years ago, in the Punjab was a right step but it appears that it lost its significance soon and it seemed more of a propaganda than a real step for public welfare. Such programmes should be continuous so that we can have healthy and sturdy citizens who are capable of producing more economic gains.

### Social Life

Like many other States of our Union there is no artificiality in the social and cultural life of Uttar Pradesh. Though the aristocratic families and a new strata of educated, but not enlightened, people may exhibit artificiality and take airs on occasions, on the whole, the general masses of the State are ignorant, simple and laborious. The peasant of Uttar Pradesh is quite laborious and honest but the traders and businessmen, as elsewhere, seem to have thrown all moral norms to the winds and are always in search of an opportunity to fleece and exploit the innocent farmer who, otherwise, sustains the so-called urban masses by way of his constant and toiling labour.

The largest Hindi speaking State of India, Uttar Pradesh is truly the heartland of India. The social and cultural life of this State is similar to the ones in the adjoining parts of Himachal Pradesh, Haryana, Rajasthan, Madhya Pradesh, Bihar and the neighbouring country of Nepal. Apart from that, glimpses of the culture of almost all parts of India can be glanced through this State. That way Uttar Pradesh is India in miniature and a visit to this State gives the glance of the entire multicoloured culture of India. People with

varying physical structures, stamina, intelligence, hue and colour can be seen in this vast State. Sturdy, tall and white people decorate some parts of the State, whereas people with wheatish, yellowish, dark and black skins can also be seen in other parts of the province. Very active, agile and laborious people found in some parts present a contrast to the inactive, happy-go-lucky fellows, idlers and exploiters in some other parts.

In the field of worship, right from the international and national deities local gods and goddesses are also worshipped. Not to speak of gods and goddesses and their stone carved statues, in this land of greenery and granary even leaves, twigs, trees, creepers, birds, animals, insects, reptiles, etc., are venerated and worshipped on special occasions. Looking at the Hindu populace of villages and towns it can be said that an overwhelming majority of the Hindus are staunch followers of traditional Sanatan Dharm. The Muslims also pay homages, respects and offerings on the mausoleums and tombs of their saints, seers and sages. The Hindu population is traditionally divided into four *varnas* and many sects. Apart from this, the concept of regionalism also plays a vital role among the masses. Even though inhabitants of one State, people have strong likes and dislikes in matters of matrimony for a particular region. No doubt, time is making dents in the age old caste ridden society, yet, to a great extent, rural society still suffers from all the evils of the caste system. From the cultural point of view, Muslims of Uttar Pradesh are as much responsible for the State's culture as the Hindus. As Punjabi Muslims have a distinct Punjabi culture and Bengali Muslims have a Bengali culture, Muslims of Uttar Pradesh have a Hindustani or Hindi culture. But it is also a sad factor that the orthodox Muslims like Sir Sayyad Ahmad Khan and his followers started the so-called wave of Muslim Renaissance on this soil which ultimately led to the two nation theory. Muhammad Ali Jinnah, the strongest protagonist of Pakistan in the first quarter of the present century, found a fertile soil for sowing the seeds of disintegration and evil designs in this State which ultimately led to the Vivisection of our motherland. The late Liaquat Ali Khan, once the Prime Minister of Pakistan, originally hailed from Uttar Pradesh.

A very bad social custom which prevails in the Uttar Pradesh society is the prevalence of dowry system. In spite of the anti-dowry drive launched by some social organisations and a punishable offence declared by the government, the evil of accepting and giving of dowry has not shown any appreciable decline. Apart from dowry in kind thousands of currency notes are given before the marriage, at the time of marriage, and after the marriage. The

amount received at the time of engagement, 'tikka' and departure of the marriage party speaks about the social status the groom's family enjoys in the society. The unhappy corollary to this evil custom is that in many cases when, because of unavoidable circumstances and socio-economic compulsions prevailing in our society, many parents of the brides are unable to keep up their promises, the brides receives a very cold treatment in the new family. Many families in Uttar Pradesh are leading miserable lives because of the evil of the dowry system. Sometimes, after accepting the cash, jewellery and other articles the in-laws of the newly wedded bride prefer to keep their daughter-in-law at her parent's home when she goes back from the in-laws till their demands are fully met and their so-called down-graded status in the society is restored. This is not the case only with illiterate and ignorant village masses but the author has a personal knowledge about many such cases where engineers, doctors, lawyers, traders, industrialists and intellectuals are involved. In many cases it has been found that the educated youngmen do not want, rather do not have, the guts to oppose the wishes and dictates of their parents who still cling to the outmoded, outdated and illogical conventional traditions. It is an irony that the youth, especially those receiving education in colleges and universities, struggle to set right the political and administrative set-up but they cannot revolt against the ill conceived, misconceived and cruel traditions being perpetuated by their elders. In fact, it is the need of time that a social revolution starts at the grassroots of our society. The State of Uttar Pradesh and adjacent parts of Bihar, Madhya Pradesh, Rajasthan and Haryana are badly in the clutches of the dowry system. A few months back the Youth Congress started a signature campaign against the acceptance and giving away of dowry. Many college and other girls took solemn pledges not to choose dowry hungry youngmen as their life partners. But it seems that the pledge forms have been thrown into the dust bin of time and the evil of dowry has still further yawned its jaws and would one day engulf the entire society if some timely steps by the authorities are not taken. The tragic reality is that although our law makers and administrators debate at length on the evils of dowry inside the Legislative Assemblies and from public platforms, they themselves receive dowry in thousands and lakhs for their sons and wards albeit through indirect means. This is a colossal problem and it requires immediate and stringent action by our leaders. The desired aims may probably be not achieved just by making laws and giving them publicity. At this front a leader of Mahatma Gandhi or Jayaprakash Narayan's stature is needed to launch a social revolution, whose own record is crystal clear. A majority of our present day

leaders do not enjoy any esteem in the public eye because of their misdeeds, mis-statements, misrepresentation, double personalities and the undue favours they have showered on their sons, daughters and other near and dear ones. Thus, for running successfully a social revolution of the kind that can uproot the evils of the dowry system, untouchability, etc., which have been permeating our social fabric, selfless and self sacrificing leaders are required. The entire social life in Uttar Pradesh has been plagued by such social evils and immediate steps are badly needed to eradicate the same.

## *Cultural Heritage*

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Uttar Pradesh, the heartland of India, has been the cradle of the most precious legacies of Indian civilization. Though the archaeologists' spade has not so far been fully able to bring to light the remains parallel to Harappan and Mohājjo-Daran finds, yet the ancient articles located during excavations at Banda (Bundelkhand), Meerut and Mirzapur definitely belong to the stone and pre-stone age. Many of the archaeologists are convinced that the missing link in between the Indus Valley and Vedic civilizations may be found buried beneath the historical ruins in Uttar Pradesh. "Resplendent in its own glories, Uttar Pradesh has, throughout its recorded history, been the scene of a cultural efflorescence which has moulded the culture of the entire sub-continent. India, in fact, has been mirrored and summed up in Uttar Pradesh as probably in no other region."<sup>1</sup> Krivis, the contemporaries of the Kurus and living in Panchal Desh were famous throughout the country. The Shursenas who ruled through Mathura with republican traditions made their capital city as a celebrated seat of art, architecture and sculpture. Koshala, with its important city of Ayodhya, had a

1 Chatterji, Nand Lal, *op. cit.*, p. 2.

great and glorious past. Its ancient ruler, Parasenajit, traced his descent from the Vedic hero, Ikshvaku. The distinguished descendants of the old Bharat family, the Vatsas, ruled in Kaushambi. One of its rulers, Udyana, and his consort, Vasandatta, have been immortalised by the Sanskrit bard, Bhasa, in his famous drama, *Swapnavasavadatta*. Prayag (Allahabad) has been a renowned nerve centre of Hindus, next only to Varanasi. Kashi, the present Varanasi, produced a great king in the person of Ajatshatru who, besides being an efficient administrator and indefatigable warrior, was a reputed patron of art, learning and philosophy.

In the Rigvedic literature no mention is found of the region now forming Uttar Pradesh. Even Ganga and Yamuna, the two most sacred streams of India, seem to be almost non-existent on the farthest horizon of the Arya Desha. In the post-Vedic age the significance of Sapta Sindhu starts declining and the Brahmrisi Desha or Madhya Desha assumes greater importance. In that period the present Uttar Pradesh became a heart of Aryan culture as well as nursery of Hindu philosophy, Vedas and Vedantas. One of the earliest religious reform movements, Buddhism, ushered in by Gautama Buddha first received impetus in Uttar Pradesh. Buddha gave his first sermon to his initial five disciples at Sarnath where he turned the Dharma Chakra also. He performed his greatest miracles at Sarvasti (near Varanasi) and Sankarya in Etah district. Buddha attained his Mahaparinirvana (passing away from the material world) at Kushinagar, identified with Kasia of Deoria district.

The enlightened and liberal patronage of art, learning, literature and culture has been one of the richest legacies of Uttar Pradesh. Uttar Pradesh, the then metropolis of Aryavarta and the repository of Indian thought, had famed and unrivalled seats of learning at Kashi, Prayag, Ayodhya, Kaushambi and Mathura. The history and significance of Indian learning and education is incomplete without visualizing the forest hermitages like the one at Naimisharanya located on the banks of Gomati. Varied types of literature was composed on this land during that period and its climax was attained in the composition of Upanishads. Upanishads are thought to be the apex of human imagination. The hermitages of sages like Bharadwaj, Yagyavalkya, Vashishta, Vishwamitra, Valmiki, Atri, etc., were located in this land or somehow or other they were closely associated with this tract.

During the Muslim and Mughal periods, Jaunpur became the Shiraz of India and Agra grew as the imperial metropolis of the great Mughals. The cultural synthesis in society, religion, art, architecture and literature during the medieval period took place in

Uttar Pradesh. "Cultural assimilation continued throughout Muslim rule and liberal rulers like Akbar, the great nation-builder, purposely encouraged, and even accelerated this process of fusion. It was here as nowhere else in India, that the Hindu mind responded to the impact of Islamic thought."<sup>2</sup> On the other hand, the Muslim Sufis and sects got inspiration and enlightenment from Hindu philosophy and thought. This interchange of thought and study exercised a potent impact on the culture life of our country as a whole. Even during the decline of the Muslim rule and disintegration of the Mughal authority when one found the country engulfed by the ocean of decomposition from all sides, Avadh continued to be the bedrock of cultural greatness and also Lucknow snatched the cultural leadership from Delhi. Lucknow continued to be the seat of Indo-Islamic culture until it was annexed by the British and till then the cultural hegemony of Uttar Pradesh remained with the Avadh Nawabs.

Uttar Pradesh has been the home of theatre and music in India. Lucknow, Varanasi and Agra have their individual 'gharanas' where music has prospered since time immemorial. Raas, Nautanki, Kathak, Kajri, Hori all the leading forms of Indian music and dances were born and nursed in Uttar Pradesh. Similarly, Hindi literature in its different dialects (Avadhi, Braj, Khari-boli) found prolific contributions from poets, prose writers, novelists, dramatists, journalists, and critics from Uttar Pradesh. Major poets and prose writers of Urdu literature in our country during the last few centuries are also proud of hailing from this State. Painting also got a great fillip through the Jaunpur School of miniature painting. These paintings find illustrations in masterpieces like *Geeta Govinda* and *Kalpasutra*. "According to William Archer, the Jaunpur School, which flourished during the 15th and 16th centuries in the court of Sultan Husain Shah of Jaunpur, contributed to Indian painting the exquisite sharp precision in the delineation of the contours of human body, both male and female, in a distinctly elegant and sophisticated manner. The large breasts, the sweeping dip in the back, the proud curve of the hunches in these paintings are all the elements of sensual charm."<sup>3</sup>

Our first and illustrious Prime Minister of India, late Pandit Jawahar Lal Nehru, called this State "a curious amalgam of, in some ways, an epitome of India, because it is in this region that the Hindu and Persian cultures both intermingled together with the occidental culture". Pandit Nehru also remarked, "there is

<sup>2</sup> *Ibid.*, p. 5.

<sup>3</sup> Singh, S.K., *op. cit.*, p. 15.

less of provincialism there than in any other part of India. For long, they have considered themselves and have been looked upon by others as the heart of India. Indeed, in popular parlance, they (the United Provinces) are often referred to as Hindustan”.

### Art and Architecture

Many architectural styles are found within the borders of Uttar Pradesh. Buildings erected on Hindu and Buddhist styles, historical monuments and royal palaces built in the Indo-Islamic style, can be profusely seen besides the ones constructed in Avadhi and Sharqi styles.

In *Jatakas* and other ancient literature we come across mention of many old cities, palaces and forts located within the frontiers of the present Uttar Pradesh but they are to be found nowhere now on the surface of earth. The stupas got constructed by the Shakya, Mall and other rulers before the Sixth century A.D. also met the same fate. The famous Jain Stupa, whose ruins have been located in Kankaliteela near Mathura was also constructed during this period.

With the advent of the Mauryan empire in the sixth century A.D.; a new chapter in the field of art and architecture was initiated. Ashoka the Great is stated to have visited Sarnath and Kushinagar and ordered the construction of Stupas and Viharas (monasteries) at both these sacred spots. No traces of these constructions are now available but the rock built ruins found at Sarnath, Allahabad, Meerut, Kaushambi, Sankisa and Varanasi speak about the richness of Mauryan art and architecture. All the Ashokan pillars were made with Chunar stone. The Lion Capital of Sarnath is certainly a marvellous specimen of Mauryan art and architecture. The famous historian, Vincent Smith, testifies it to be the best specimen of animal figure carved on a stone. He is afraid that no parallel or better form of this type is available anywhere in the world, since in this piece of art grace and grandeur have found a synthesis of unique type and the minute work has been attained with a superb excellence. Mathura was the second leading centre of Mauryan art and architecture. Many human figures of Yakshas and their consorts carved on the stone have been located at Parkham, Borada and Jhing. These forms represented contemporary ordinary art nursed away from the royal affluence and patronage. Art and architecture flourished during the Shung-Satvahan period too. In the Sarnath ruins have been found traces of many edifices paying rich tributes to art and architecture of this time. The traces of a semi-circular temple probably built during this period are now to be seen

only in its foundations. Mathura, then, was the centre of Bharhut-Sanchi style. Many significant specimens of this style have been traced.

The artistic style of Mathura attained its climax in the Kushan period. The most significant art piece of that period was the life size statue of Buddha in incarnation. Mathura and Gandhar artists gave a lead in this field. The Jain as well as Hindu gods and goddesses were also carved into statues. The specimens of these bold statues can still be seen in the museums of Lucknow, Varanasi, Mathura and Allahabad. The huge statues of Kanishka and the other Kushan ruler, Vim Kadfises, have been unearthed at Math near Mathura.

The Gupta period is styled as the golden period of Indian art. The stone temple at Jhansi and brick temple at Bhitargaon (Kanpur) can be called the best specimens of ancient architecture because of their artistic backgrounds. Lord Vishnu's statue in standing form and Buddha's statues excavated at Mathura are other specimens of art dating back to this period, found in Uttar Pradesh. Simplicity and balance were the chief characteristics of this period's art. Not only stone statues but even artistic statues in clay belonging to this period have been unearthed at Rajghat (Varanasi), Sahet-Mahet (Gonda-Bahraich), Bhitargaon (Kanpur) and Ahichatra (Bareilly).

The post-Medieval period once again witnessed the progress and profusion of construction activities. Contemporary Muslim historians have paid rich tributes to the towns of Kannauj, Varanasi, Kalinjar, Mathura and to the forts, fortresses, palaces and temples found over the entire tract now forming Uttar Pradesh. During the days of Gurjar Pratiharas and Gahrawars, Kannauj had become a great seat of art and learning and thus attracted the cupid eyes of Muslim invaders. The artistic beauty of Mathura temples had reached such new heights that even the iconoclast, Mahmud Ghazanavi, praised these shrines. The Chandel rulers of that time were also great patrons of art and learning. Although their constructive activities were mainly concentrated in and around Khajuraho, yet the remains of shrines and tanks built in many parts of the present Bundelkhand like Mahowa, Rasin and Rahiliya can still be seen. The Kalinjar fort built by them proved to be an unsurmountable defence. The temples and statues of gods and goddesses made in the Uttar Khand speak volumes about the artists of that period.

The Sultanate period, as far as the art and architecture in Uttar Pradesh is concerned, can be called comparatively a dark period. The Delhi Sultans mostly confined their constructive activities to Delhi though some mosques and tombs were got erected by them in some parts of Uttar Pradesh also. The most outstanding feature of our national culture has been its unique capacity to absorb and

assimilate the diverse elements it received from outside in the wake of foreign invasions. This synthesis or assimilation was profusely seen in the field of architecture which started originating in the Medieval period. "It is this remarkable vitality which has kept the continuity of Indian culture unbroken through the ages. This process of dynamic synthesis not only saved the soul of India in the midst of political upheavals, but led to a cultural rapprochement between the two rich and potent cultures—Hindu and Muslim."<sup>4</sup> The Medieval period witnessed a strange but vital movement of cultural intermingling despite all the political conflicts plaguing the country. This assimilation indirectly provided an enduring ground between the two major communities. The fusion of Hindu and Muslim styles in different fields and especially that of art and architecture was started by Muslim rulers as well as Hindu kings and their feudatories. "The blending of architectural ideas and tastes, and spiritual and aesthetic concepts produced an unparalleled synthesis and a new artistic revival which had all the glory of a spontaneous efflorescence of art. The new architecture was one whereof both the Hindus and Muslims could be equally proud, and in the creation of which both the communities made supreme effort of a heroic type."<sup>5</sup> Muslim rulers found it a pleasant hobby to construct mosques, tombs, palaces and cities. The Muslim rulers could not always bring all the artists and craftsmen required for this purpose from outside India. They had to depend heavily on the Indian artists and craftsmen who exhibited a wonderful capacity of adaptation when they were required to work under Muslim inspiration and patronage. Though these indigenous artists and craftsmen had to work in accordance with the Muslim plans, yet they found ample scope for the introduction of their own styles and standards of art which were alien to the Muslims. This blending gave a different and unique perceptible look to Muslim buildings in India totally different from their counterparts in other Islamic countries.

With the advent of Sharqi rule in Jaunpur the revival of art and architecture was seen in Uttar Pradesh. Under the patronage of Sharqis the famous mosques of Atala, Khalis-Muklis, Jhanjhari and Lal Darwaza were built. However, Jama Masjid is the glorious mosque built under their inspiration. Ibrahim Sharqi got the Atala mosque built in 1408 A.D. which became an ideal for other mosques of Jaunpur. These mosques portray the finest specimens of the synthesis of Hindu and Muslim art and are the examples of simplicity, masonry skill and craftsmanship. The artistic gateways

4 Chatterji, Nand Lal, *op. cit.*, p. 62.

5 *Ibid.*, p. 62.

are the basic features of Jaunpur mosques. These mosques have also provisions for the prayers by womenfolk. For this purpose galleries surrounded by artistic walls have been provided inside the mosques. The Sharqi rulers also attended to the construction of forts and fortresses. The fort at Jaunpur has a significant and dominating status among all the forts built in the initial years of the Medieval period. Now this fort is in ruins but the remains speak about its great and mighty past. The simple style with all its beauty and grandeur can still be seen in the ruins of the eastern gateway as well as inner colonnades.

The principle of give and take in the Indian art and architecture of Medieval India reached its highest watermark during the Mughal period when the Indian and Persian elements as well as styles completely intermingled to produce a harmonious style of architecture. Where this assimilation reached its apex successfully the wonder in art in the form of Taj Mahal was created which makes the consummation of a truly national style. Mughal monuments at Delhi, Fatehpur-Sikri and Agra are veritable masterpieces of art, design, decoration and construction. All these buildings belong to Indian style since they carry neither Hindu nor Muslim styles and traditions completely. Hindu, Buddhist, Jain and Persian styles, ideas, features and traditions find a communion in these buildings. "For instance, the insertion of Jaina serpentine brackets in Shaikh Chishti's tomb is a remarkable piece of a blending of dissimilar styles. The Panch Mahal at Sikri or Akbar's tomb at Sikandra likewise suggests a Buddhist monastery or Vihara. The lotus-pillared Diwan-e-Khas at Sikri is another supreme example of a brilliant Hindu symbolism in a Persianized setting—a triumph of Hindu-Muslim co-partnership."<sup>6</sup>

The Mughal period saw the emergence of numerous forts, palaces, gardens, mosques, tombs, tanks, bathing pools and other monuments which are reputed the world over for simplicity, strength, sobriety, extravagance, liberalism, imagination and the effeminate and poetic style. The founder of the Mughal empire in India, Babur, 'the home sick emperor', could hardly find any time for constructive activities in his short rule during which he was busy fighting all through. He got mosques built in Ayodhya and Sambhal. His successor, Humayun, was always kept on heels by his strongest and successful rival Afghan ruler, Sher Shah Suri. But still this tumbling emperor laid the foundations of his tomb which was later on completed by his son and successor, Akbar, the greatest of the Mughal emperors. Humayun's tomb at Delhi is really a work of art and it led to the evolution of Taj at Agra. Thus, the work on Mughal buildings

was successfully initiated by Akbar and it reached the highest pinnacles of glory and grandeur in the times of Shahjahan, the prolific builder of monuments in Medieval India.

Akbar chose Sikri (renamed as Fatehpur-Sikri after his Fateh, i.e. victory, over Gujarat) for the construction of his dream capital. Akbar's buildings at Fatehpur Sikri can be divided into two parts, i.e., religious monuments and secular buildings. Sheikh Salim Chishti's tomb and Great Mosque come under the former division while Jodhabai's palace, Mariam's Kothi, Sunehra house, Panch mahal, etc., come under the latter division. Akbar mostly used sandstone for his buildings and his capital complex at Sikri is still known as a romance in sandstone. With the exception of slight Persian influence depicted in the details of surface decoration, Akbar's buildings show a marked reaction against the Persianization of Muslim style in India. Akbar, the great warrior, empire builder and secular administrator, has vividly shown the traits of vigour, visible imagination, boldness and tolerance alongwith a happy blending of art and economy in his buildings. "In short, the same economy, efficiency, and liberality which distinguished Akbar's administration are visible in his buildings as well. The vigorous style of Akbar was not plain, formal or sober like that of the Tughluqs, but shows Hindu imagination and artistry, and is also distinct from the effeminate and poetic style that flourished under Shahjahan. The robust, virile, yet unimaginative style of Akbar's buildings is clearly differentiated from what preceded it, and what followed afterwards."<sup>7</sup>

Jahangir, because of his innate indolence, mediocrity and political troubles could find little time for building activity. However, he completed his father Akbar's Tomb at Sikandra started by Akbar and also got Itmad-ud-Daulah, his father-in-law's tomb built due to the insistence of his wife Nurjahan. The style of his buildings vividly shows a transition between the Hindu style of Akbar, his father, and markedly Persian style of his son Shahjahan. He also introduced the use of inlay work whereas Akbar had stressed on only the mosaic work with coloured marble. He also initiated extravagance which reached its apex in Shahjahan's time. Due surely to the influence of his consort queen Nurjahan, Jahangir's style shows the clear indication of effeminate style which again reached its climax in Shahjahan's buildings.

The exuberance of architectural activity was, however, seen during Shahjahan's time. Forming the lyric age of Mughal architecture, Shahjahan's edifices mark the climax of Indo-Islamic style.

His palaces at Agra and Delhi, and above all the Taj, the *chef-d'oeuvre* of his reign and an eternal dream in marble are veritable architectural triumphs of his passion for beauty wrought into living stone. Taj, the marble dream, a graceful tribute of India womanhood is a splendid memorial of intense love of Shahjahan bursting through marble towards his beloved queen (Mumtaz), Anjumand Banu Begam. It appears as if Mumtaz herself, buoyant in her womanly spirits, moves about with royal dignity and her rhythmic footsteps in the bankside orchards, which still adorn the Yamuna bank at Agra like an eternal dream in marble. However, in the erection of this memorial with a predominance of Persian style, Shahjahan was recklessly extravagant at the cost of toiling and tattered millions of Indian. He not only sunk a huge sum of money in this edifice but also demolished many of Akbar's buildings built inside the Agra fort and rebuilt them with costliest materials. Diwan-e-Aam and Diwan-e-Khas are two such examples. Nagina mosque, Musamman Burj and Moti Masjid are other examples of his intense love for attractive architectural designs. During this period many magnificent temples and 'ghats' were also built at Virandavan, Mathura and many other places.

Architecture suddenly deteriorated after the death of Shahjahan. His son and successor, Aurangzeb, the most bigoted, Mughal emperor, could not tolerate the presence of Hindu artists and craftsmen in his court. He dismissed all such artists with the exception of orthodox Muslim craftsmen. In the absence of Hindu genius Mughal architecture could not be enriched. Lacking the artistic sense and taste for fine arts of his predecessors Aurangzeb did more harm to the existing specimens of architecture rather than adding any to this important constituent of our great cultural heritage. He shunned extravagance and built only some mosques and those too with the material obtained from the demolished Hindu shrines under his order. He not only neglected and showed indifference to craftsmen but drove them away from his immediate jurisdiction. These unfortunate artists ultimately sought refuge and shelter in some small Hindu States of Rajputana and Central Indian states of Jaipur, Deeg, Orchha, Datia, etc. This led to the degeneration of Muslim architecture. It is an irony of fate that the marvellous achievements of the empire builder, Akbar, and the prolific monument builder, Shahjahan, were nullified by the bigotry and blind orthodoxy by the last of the Great Mughals with disastrous results for the Mughal empire, culture and civilization.

Away from Delhi and its vicinity the Nawabs of Avadh continued to keep alive their ancient tradition of art and architecture. Many mosques, palaces, gateways, gardens and 'imambaras' came

into existence during the declining period of Mughal empire under the patronage and supervision of Avadh Nawabs. To begin with, their building activities were limited to Faizabad only but later on they shifted their building centre to Lucknow. Asif-ud-Daulah's Imambara, Kaisarbagh Tomb, Lal Baradari, Residency, Rumi Darwaza, Shah Najaf, Husainabad Imambara, Chhatra manzil, Motimahal, Kaisarbagh Palace, Dilkusha Bagh and Sikandra Bagh are some of the noteworthy buildings of Lucknow belonging to this period. No doubt the style shows a marked deterioration yet these specimens of architecture have their own special features. The emblem of the fish as a decorative design, the piscine motif, the gilt umbrella, arcaded pavilion (Baradari) and gateway are those basic characteristics of the Lucknow style which add grace as well as dignity to all these constructions. The shining umbrellas lend a pleasing charm and soothing effect both in soft moonlit nights and dazzling sunshines. Some people criticise the Lucknow style on the ground that it is an admixture of many styles. They also remark that many of the Lucknow buildings are unworthy copies of the western style. Still, these buildings have a great importance in the history of Indian art and architecture and, undoubtedly, they carry some of the finest specimens of art.

With the control of the British over Uttar Pradesh art and architecture took a new turn. The government patronage to temples and mosques ceased to exist. Now came the period of schools, colleges, hospitals, secretariats, government offices and railway station buildings. Such buildings grew at a rapid speed. All these constructions are miles away from the ancient architectural tradition and their base is mainly public utility. To depict minute details of art and architecture is no aim of these new trends and designs. However, a new era of modern art and architecture has ushered in the State and it is marching ahead with an unparalleled speed with the passage of time.

### Language and Literature

Since time immemorial Uttar Pradesh has been the *sangam* (confluence) of literature, art and music. The continuous flow of these academic and fine art streams coming from different parts of our country found its apex and fruition in this sacred land of Ganga and Yamuna. In the panoramic mountainous abodes and along the banks of chanting streams the literature not only in Vedic Sanskrit, Shudh Sanskrit, Prakrit and Pali was composed but lot of fiction, verse and prose has been composed and is still being continuously composed in Avadhi, Brajbhasha, Bhojpuri, Kannauija,

Bundelkhandi, Garhwali, Kumaoini and Khariboli. Hindi in its various forms is the dominant language of this State. About 85.67 per cent inhabitants use Hindi in their day-to-day routines. Urdu is the second dominant language here used by about 10.70 per cent people in their day-to-day lives. Besides, the people of this sacred land inherited the knowledge of Sanskrit. Varanasi has been the greatest seat of Sanskrit learning from very ancient times. Linguists, grammarians, thinkers and scholars have been flocking to this highest seat of learning since ages from different parts of our motherland and abroad. Knowledge gained over centuries is still preserved and disseminated in this sacred city of erudite scholars. The sole Sanskrit University of India is housed in Varanasi.

Much of the Vedic, Aranyak, Upanishadic, Brahmanical, Sanhita and Smriti literature of ancient India was written and recited on this land of gods, goddesses, saints, seers and sages. The great sage and literary bard, Mahakavi Valmiki, is stated to have belonged to a place near Bithur, about 24 kilometres from Kanpur. Though some historians now claim that Aadikavi Valmiki's ashram (hermitage) where he composed Ramayana and gave shelter to Sita and where Rama's sons Lov and Kush stopped the Ashvamedha horses is located at Ramtirth near Amritsar in Punjab, yet there is sufficient evidence to believe that the Great Sage lived at Bithur also for some time. The first lines of his verses must have echoed in the then Madhya Desha of Aryavarta though at later stage, especially when he decided to extend refuge to Sita, he might have shifted his hermitage away from Lord Rama's kingdom of Ayodhya. Maharishi Ved Vyas also composed his *Mahabharata*, *Shrimad Bhagvadgita* and *Purans* on the banks of Uttar Pradesh streams. He composed most of his literature in his hermitage at Namisharanya located on the banks of Gomati. Vyaspeeth, still located there, is probably the remnant of that great hermitage. The Malini stream of Mahakavi Kalidasa's *Abhigyan Shakuntalam* came out of the Shivalik hills and dropped into the Ganga near Rawali Valley. His *Kumarasambhava* starts with the description of Uttar Khand and Himalayan ranges. Kankhal of Kalidasa's *Meghdoot* is situated near Haridwar. Many scholars opine that the birth of this great Sanskrit bard surely took place somewhere in the vicinity of the Malini stream, though he might have lived anywhere later on. Maharishi Kanva's hermitage extended from Rawali (Bijnore) to Kotdwar (Garhwal). The places finding mention in his compositions can still be located in this tract. An old pillar on the bank of Malini near Nazirabad still speaks of Dushyanta's hunting muses through the inscribed sketches on it. Another Sanskrit litterateur, Bharvi, belonged to Uttar Khand. He had close associations with

Shrinagar, a town in Garhwal. The great playwright, Bhavbhuti, also echoed his dramatical verses in the Tarai area of Uttar Pradesh. The literary richness of the tract that remained in close association with sage scholars like Valmiki, Ved Vyas and Kalidasa, can be easily assessed.

The history of Hindi literature is closely linked with Uttar Pradesh. The history of Hindi literature starts with the disintegration of Harsha's empire after his death in A.D. 647. The Rajput chiefs who came to control the disintegrated parts of India had strong strifes among them. They used to unite only in the wake of a foreign aggression. In such upheavals and turmoils the court poets got many an opportunity to praise and arouse the heroic deeds of their hosts. From A.D. 700 to A.D. 1150 many such verses were composed which are unfortunately not available now. Amongst the most renowned poets of this period were Pushya, Kedar, Ananyadass, Masud, Qutab Ali and Akram Faiz. It is impossible to decipher due to want of literature of that period as to whether these poets composed their verses in Prakrit or old Hindi.

In the concluding years of the twelfth century A.D. the great poet Chand Bardai, the friend, philosopher and guide of Ajmer and Delhi ruler Prithvi Raj Chauhan composed '*Prithviraj Raso*'. Keeping in view the variety of language found in this epic now it is presumed that many of the verses were added by Jalhan, the poet son of Chand. On similar lines Jai Chand, the ruler of Kannauj and strong opponent of Prithviraj Chauhan, got *Juichandra Prakasha* and *Jaymayankjaschandrika* composed by his court poets Bhatt Kedar and Madhur. Jagnik or Yagnayak, a contemporary poet of Chandbardai composed the bard poetry *Alha-Udal* while being a court poet of King Parmal of Mahoba. Dalpati Vijay's *Khuman Raso*, Narpati Nalha's *Beesaldev Raso* and Sharangdhar's *Hammir Raso* are other such compositions of the thirteenth century. Some poets like Khusro and Gorakhnath also produced a literature removed from the beaten track.

With the advent of the fourteenth century the Hindu literature showed an inclination towards assimilation of different thoughts and cultures. Kabir, Jaysi, Raidas, Dadu and Ravidas made sincere efforts through their verses for the moral upliftment of the masses. They propagated a message of truth and love and shunned excessive attachment to worldly life, casteism, strata of society and false traditions. These saints wandered in many parts of the country, hence their language is not pure Hindi, but an amalgam of many dialects, popularly known as *Sadhukkari bhasha*, i.e., dialect of the saints. Besides this stream of poetry, there flowed another

wave which aroused deep faith in Almighty God. Surdas, Tulsidas, Mirabai, Nanddas, Raskhan and Katipay were such Hindi poets who gave the message of love towards God.

Surdas composed beautiful verses relating to Krishna's boyhood, separation and other achievements in Braj Bhasha the language of Vrindavan and its surroundings. The feelings of childhood as depicted by Surdas find no parallel in any other literature of the world. Dev, Bihari, Gang, Mati Ram and Bhushan also wrote in Braj Bhasha a language with sweet and soft sounds.

Tulsidas attained the highest pinnacle of glory and success in Hindi literature. He wrote in Avadhi, the language of Ayodhya and its surrounding area. As Surdas is the leading poet of Braj, Tulsidas is the most renowned poet of Avadhi. Sur's literary field was limited but with a depth while Tulsi's field was vast and extensive. Tulsi's *Ramcharitmanasa* has crossed the borders of India and acclaimed applause from almost all parts of the world. As an inspiring and ideal epic *Ramcharitmanasa* has been translated in almost all languages.

The Medieval period in India was the period of comparative peace, luxury, indulgence and sychophancy. This led to the emergence of another wave in Hindi poetry which delved deep into the effeminate charm and luxury. Bihari, Dev, Ghanananda, Rahim, Senapati, Bhooshan, Bhikharidas and Padmakar are some of the renowned poets of this period. Bhooshan, however, moved away from the beaten path and wrote heroic poetry in praise of the then Deccan leader *Chhatrapati Shivaji*.

Some time later Hindi literature came in close contact with western thought and literary currents. This contact brought the Hindi literature out of the domain of the chosen few and made it a medium of expression of the general feelings of the masses. It was the period when different forms of Hindi prose came to light. On the other hand, for enriching its literature many translations of world famed treatises started appearing in Hindi. Raja Shiv Prasad Singh wrote school textbooks in Hindi. Bhartendu Harish Chandra started writing dignified plays in Hindi. He also composed many awakening poems. Babu Shyam Sunder Dass made herculean efforts to propagate Hindi. The Mishra brothers—Ganesh Bihari Mishra, Shyam Bihari Mishra and Shuk Dev Behari Mishra—published the history of Hindi literature in three volumes. Acharya Mahavir Prasad Dvivedi gave a new trend to Hindi writings on the basis of modern principles of literary criticism. Through his monthly *Saraswati* he tried to improve upon the language and also effaced the erroneous views of Hindi writers. The development and improvement of a language comes

mainly through journalism. Rudra Dutt Sharma (Dhampur-Bijnore), Ambika Prasad Vajpayee (Lucknow) Babu Rao Vishnu Rao Padarkar, Ganesh Shankar Vidyarthi, Padm Kant Malviya, Dr. Sampurnananda, Devi Dutt Shukla and Madan Mohan Malviya rendered a yeoman service through their journalistic pursuits to Hindi. Babu Shyam Sunder Dass and Ram Chandra Shukla prepared a sound platform for literary criticism in Hindi. Maithili Sharan Gupta, Ayodhya Singh Upadhyaya 'Hari Audh', Jay Shankar Prasad, Surya Kant Tripathi 'Nirala', Balkrishan Sharma 'Naveen' and Sohan Lal Dwivedi have been the outstanding poets of this age. Maithili Sharan Gupta of Uttar Pradesh (Jhansi) got the distinction of being the first national poet of free India. Sumitra Nandan Pant, Mahadevi Verma, Hariyansh Rai Vachchan, Hiranand Sachchidanand 'Agyeya' are still doing a great service to Hindi poetry.

Among those fiction writers who have expressed the feelings ; hopes and desires of the masses are Munshi Prem Chand, Bhagwati Chandra Verma, Ila Chandra Joshi, Rangey Raghav, Chatursen Shastri, Jay Shankar Prasad, Amrit Lal Nagar and Vrindavan Lal Verma. Prem Chand's (original name : Dhanpat Rai) novels are the true gazetteers of different parts of Uttar Pradesh depicting the true life of the residents of Uttar Pradesh. Known as Hindi Upanyas Samrat (King of Hindi novels) Prem Chand had a deep probe in the hopes, desires, ambitions, aspirations, weaknesses of human nature and depicted the same through beautiful and attractive expressions in a very simple and accessible Hindi. The Gorky of India, Munshi Prem Chand depicted through his novels the true life of an Indian farmer and presented their problems to the society. The climax of his depiction reached in *Godan* which has been translated in almost all languages of the world. Similarly, his numerous stories are closely linked with the social life of India. *Shatranj ke Khilari* and *Kafan* vie with the best stories of the world. Vrindavan Lal Verma was the first Hindi writer of historical novels. This Jhansi advocate, though he failed to make a successful probe in court cases, wonderfully succeeded in making a deep study in the historic ruins of many parts of India and produced a dozen very good historical novels. Through his novel *Jhansi Ki Rani* he has immortalised the life and achievements of the brave, intrepid, unyielding and ambitious daughter of our motherland, "the bravest and best military leader of the rebels" who doggedly fought with an invincible courage and determined fury and at least once shook the empire builders, the Britishers. His other creation, *Mrignayani*, is equally interesting and authentic. Jainendra, though he lives in Delhi, hails from Muzzaffarnagar in western Uttar

Pradesh. Agyeya's literary pursuits mostly flourished in Uttar Pradesh. In the field of play writing Govind Vallabh Pant, Lakshmi Narayan, Ram Kumar Verma have won laurels. The history of Hindi Literature not only of Uttar Pradesh but of our entire country will be incomplete without a richly deserved reference to Acharya Hazari Prasad Dwivedi. A prolific writer on Indian culture and civilization Acharya Dwivedi is a literary critic *par excellence*. Humble, polite, humorous and soft spoken, Acharya Dwivedi, a scholar of deep erudition continues to serve Saraswati (goddess of learning) in many capacities. A capable teacher of repute he has produced many a literary gem in the field of Hindi literature. Shivdan Singh Chauhan, Ramvilas Sharma, Dr. Ramesh Kuntal Megh, Dr. Nagendra are among other such Hindi writers from Uttar Pradesh who are still rendering a great service to the cause and propagation of Hindi.

*Urdu* : Uttar Pradesh has played a major role in the development of Urdu. Initially a language of invading camps (*lashkar*) Urdu became a first rate language with its uniqueness in writing and speaking. In the field of poetry it is an unexcelled language. It is gathered that it was Amir Khusro of Patiala (district Etah) who wrote and recited the first Urdu Ghazal (verse) in the thirteenth century. However, the real development of Urdu started in the eighteenth century. Agra was the first centre of Urdu poetry, the home town of Mir Taqi Mir. Nazir Akbarabadi another Urdu poet lived, wrote and died in Agra. Mirza Ghalib the renowned Urdu poet also lived for some time in Budayun, Rampur, Lucknow and Varanasi.

The disintegration of the Mughal empire resulted in confusion and chaos of the worst order in Delhi. This drove out many of the Urdu poets who sought shelter in Uttar Pradesh. Asif-ud-Daullah, the Nawab of Lucknow was himself a good poet and he offered refuge to many Urdu poets. Fughan, Mir Taqi Mir, Sauda, Mir Zahi, Mir Hasan, Musahfi, Insha and Jurrat were such poets. Besides ghazal, the other forms of Urdu literature like Masnavi, Marsia, Rekhta, etc., developed in Lucknow. Lucknow, in fact, became the capital of Urdu literature and the fact is symbolised in line : *Lakhnauo ham par fida hai, ham fidae Lakhnauo*, i.e., Lucknow is in love with us and we are in love with Lucknow.

Dagh, Asar, Amir, Jalal and Taslim got the patronage of the Rampur court. Chakhast, Shaffi, Takib, Aziz and Jalal brought about a synthesis of new ideas in Urdu Ghazal and Nazam and thereby gave a new trend to the Lucknow Urdu poetry. Braj-narayan Chakhast gave place to national feelings in Urdu poetry.

Surur Jahanbadi, Bishan Narayan Dar, Naubat Rai Nazar, Dwarka Prasad Ufaq, Hasrat Mohani, Asghar Gondavi, Akbar Allahabadi. Jigar Moradabadi, Arzoo Lakhnavi, Fani Badayuni, Riaz Khairabadi, Shakeel Badayuni, Jafar Ali Khan 'Asar' Lakhnavi are some other luminaries of Urdu poetry. Akbar Allahabadi is known for his satirical and humorous poetry. Tajwar Najibabadi and Qayam Chandpuri broke new ground in Urdu poetry. The following couplet of Chandpuri has been widely acclaimed :

*Qismat ki khoobi Dekhiye tooti kahan kamand  
Do char hadanjab kih labe bam reh gaya.*

At a later stage especially after Independence, it has been observed that Urdu poets have started borrowing Hindi words while Hindi poets also frequently make use of Urdu words. This amalgam has, in fact, lent a new charm to the poetry of both the languages. Jamal Bharati's following verse is a good example of this assimilation :

*Samaya koi nah phir zindagi bhar apni ankhon men,  
Koi manmohini soorat woh jab se ah dekhi hai  
Sakhi, woh jab bhi ayen, bas unse tu itna keih dena,  
Kih shame zindagi tak main ne unki rah dekhi hai.*

(No body else could attract me since that magne face has infatuated me. Friend, whenever he comes, tell him only, that I have waited till the evening of my life).

After India's first war of independence, Urdu prose also made a headway. In the novels of Abdul Halim 'Sharar' and Pandit Ratanath 'Sarshar' a new style of Urdu prose emerged. Mirza Mohammad Hadir Ruswa, Munshi Sajjad Hussain, Maulana Shibli and Maulana Suleman 'Nadvi' gave new dimensions to Urdu literature. Sir Sayyad Ahmad Khan, the founder of Aligarh Muslim University as well as 'Muslim Renaissance', was himself a good Urdu writer who gave a new trend to Urdu writing. Though he hailed from Delhi, his writings on social reforms, history, education, biography, politics and nationalism had a deep impact on many of the Urdu writers of Uttar Pradesh. Urdu language still receives impetus in this State. For the propagation and enrichment of this language the State Government has established an Urdu Academy. The Academy, besides helping the poor Urdu writers financially, also awards capable Urdu writings. The students receiving higher education in Urdu also receive assistance from the Academy. The Academy extends financial aid to the libraries and reading rooms for the purchase of Urdu newspapers, magazines and books.

## Music

The origin of Indian music is still lost in oblivion. According to Puranic literature, music in India, which contained vocal, as well as instrumental and drama as also dance, was conceived and propagated by gods and goddesses. Even today the goddess Saraswati is worshipped as a master patron of learning and music. Similarly, in the field of dancing, nothing is parallel to the Tandav Nritya of Lord Shiva. Uttar Pradesh which formed the heartland of Aryavarta has an old history of art, music and learning. In the Vedic age when vocal music had sufficiently advanced reference to the propagation of music in Uttar Pradesh is met with. In the greatest epic of this land *Ramayana*, repeated references to dancing, drama, vocal and instrumental music are found. *Mahabharata* tells about Gandhar Gram and seven swaras. According to *Jatakas* the Kaushambi ruler, Udayan, a contemporary of Lord Buddha, was adept in playing Veena. Kashyap, Shardul, Dattil, Matang, Abhinav Gupta and Haripal have been renowned musicians of Uttar Pradesh from the sixth to the twelfth century. The fifteenth and sixteenth centuries witnessed a remarkable progress of musical traditions in this sacred land. During this period the Persian styles of music got intermixed and amalgamated in Indian styles. Amir Khusro invented the musical instrument of Sitar which is the improved form of Tritantra Veena. He invented the Khayal pattern and also brought out new styles and patterns with the assimilation of Indian and Persian styles.

The Bhakti Movement also developed music in its wake. Poets like Surdas and Kabir recited their versions to the tune of musical instruments. During Akbar's regime music attained new heights. The great musician of the time, Swami Hari Dass, lived in Vrindavan and gave Tansen, his disciple, as a court musician to Akbar's court. Tansen's Deepak Raag is said to have worked wonders. He was, however, excelled by Baiju Bawra another top and self trained musician of this tract.

Sultan Hussain Sharqi, the ruler of Jaunpur was himself a top musician who developed Bara Khayal in the Qawwali style. Jagan-nath, a musician of Varanasi, received the royal designation of Pandit Raj in the times of Shahjahan the great Mughal connoisseur of art, learning and music. Aurangzeb had no ear for music. But some musicians like Adarang and Sadarang developed the Bara Khayal style still further under the royal patronage at Jaunpur. With the decline of the Mughal empire the subsequent turmoil at Delhi forced many musicians to seek refuge and shelter in Uttar Pradesh. Nawab Wajid Ali Shah, the last Nawab of Avadh was known for

his soft corner, magnanimity and charitable nature towards the musicians. His court witnessed musical concerts and plays at regular intervals. His patronage led to the propagation of Kathak style in dancing. Wajid Ali Shah himself learnt this style from the Kathak style expert of his times, Thakur Prasad. Binda Deen Maharaj developed Thumri to add life and charm to the Kathak dance. In fact, the Kathak style is the solid contribution of Uttar Pradesh to the domain of music. The moment Kathak left the threshold of shrines and entered royal courts, it did achieve new heights but lost the religious and sacred halo. This form of music is popularly known as Lucknow Gharana of music in Uttar Pradesh.

### **Folklore**

A vast land like Uttar Pradesh embracing snows of the Himalaya, sands of south-western tract, badland topography of Yamuna tract and monotonous plain tract of Doab, Avadh and Rohilkhand along with a narrow latitudinal belt of Bhabar-Tarai tract is bound to reflect a rich heritage of folklore bequeathed by different generations speaking different dialects and living in varying environs. Many folk songs, folk dances, *nautankis* (dramatic performances), folk tales and the like are prevalent in different parts of Uttar Pradesh. Among the Nautankis Raja Harishchandra, Puran Bhagat and Alha-Udal have won renown all over the State. The State which has seen many upheavals in political and religious spheres is bound to attract people towards performances related to religious virtues and valiant traditions. Raja Harishchandra sacrificed everything for righteousness and truth. For the sake of truth, honesty and integrity he had to work as a watchman on the cremation ground but he did not bow to greed, dishonest means and falsehood. He was so obedient, loyal and dutiful in the performance of his duties that he did not allow his own wife, who was then in distress to perform the last rites of her deceased son at the cremation ground as she did not have two pies to be paid as cremation ground tax. He accepted to work under a scavenger, he accepted the separation from his wife and child, he sacrificed his entire kingdom but he did not forsake the virtue of truth and honesty. Ultimately, virtue overpowers vice and every lost thing is restored to Raja Harishchandra. In Uttar Pradesh where wave after wave of religious movement influenced the life of the people the populace is bound to be attracted by plays like Raja Harishchandra. Even at present these Nautankis are performed during Chaumasa when peasants are relatively free from farm duties.

Alha-Udal is a very famous play staged on the rural as well as urban stage of the State. This play is based on an epic written by

a poet Jagnik who was a court poet of the Chandel ruler of Mahoba, Parmar or Parmadidev. This Chandel ruler was the contemporary of Prithvi Raj Chauhan and was a close friend of Jai Chand, the sworn enemy of the Chauhan ruler. On the inspiration of Parmar, the court poet Jagnik composed 'Alha Khand' and the Nautanki of Alha-Udal is based on this epic. In this performance are narrated and displayed the valiant deeds of Alha and Udal (Uday Singh) Rajputs, their many brothers and other members of the family. Alha and Udal hailed from the Banafar clan of Rajputs and were the commanders in the Chandel army of Parmar. Though Parmar himself was a coward and an inefficient ruler, his queen Malhana took cudgels with the help of valiant and capable commanders like Alha and Udal with mighty forces even like Prithvi Raj Chauhan. The heroic deeds of Alha, Udal, Lakhana and Sulekh were terror for many chieftains and the mighty rulers like Jai Chand also recognised their prowess and powers. The epic of Alha-Udal narrates the accounts of 52 battles fought by these valiant Rajputs and their marriages. The end of the play arouses the feelings of mercy and piety. All the Banafar heroes, excepting Alha and his son, Indal, lay down their lives at the battle-field. Alha and Indal bid farewell to this worldly life and sought refuge in some Kajriwan, i.e., green forest.

*Puran Bhagat* is a folk tale of Punjab. In this tale, a stepmother Luna, the queen of Sialkot, gets infatuated with her stepson Puran and wants to satisfy her sensual lust. On Puran's refusal to fall prey to such an immoral act, her wrath knew no bounds. She poisons the ears of her husband who punishes Puran by throwing him into a well. Some saintly passersby, somehow or other, rescue the young Puran and accept him into their fold. Later Puran by dint of his worship and spotless conduct rose the stature of a great saint. His stepmother and father beg pardon for their misdeeds. This story in Nautanki form is still depicted in western and south-western parts of Uttar Pradesh. This proves the close links the then Madhya Desha (present Uttar Pradesh) had with the Sapta Sindhu (present Indian Punjab, Haryana and Pakistani Punjab) tract.

As in other parts of India many folk songs echo in the hills, plains, meadows, ravines and homes of different parts of Uttar Pradesh. The folk songs, especially of the hilly tracts, are quite melodious and charming. These folk songs are sung on many ceremonies, happy occasions, fairs, festivals and dancing muses. The relationship between a sister and brother is quite sacred and after marriage the sister feels the separation of her brother and invites him on many occasions. Unfortunately, when a brother is unable to turn up on any such occasion the feelings of disappointment and

remorse find their way through tears and songs :

*Angan aavailain, Pargan aavailain baba sajan ghare ho,  
Are ek nahi aavailain biran bhaiya ho,  
Sasuji bhetlein aapan bhaiya, Jethan aapan birana  
Ara bairar kai Chhatia phata mor, keke ham uhi bhetin ko.*

(Oh father, all have come to my husband's dwelling, but only my brother has not reached so far. Mother-in-law has met her own brother and sister-in-law, i.e., jethani has also met her brother. My stony breast is tearing away and whom should I go and meet).

As everywhere the wife does not want an undue and long separation from her husband. The wife is prepared to undergo want, hunger and poverty but she cannot bear separation from her groom. A folk song containing the following lines rightly and excellently depicts such feelings:

*Ser gohuvan baras din khaibain, baras dain khaibain,  
Piya ka jayce nah debin ho  
Rakhabain ankhiya ke hajuravan,  
Piya ke jaye na debin ho.*

(I will consume only one seer of wheat flour throughout the year but I will not allow my husband to go away from me. I shall continue to keep him in front of my eyes but I will never let him go away from me).

The Phagun Geet depicts the feelings of separation when a husband who has taken job somewhere else does not return to his wife shortly. The bride addresses her friend and reveals her heart throbbing pangs of separation in this folk song:

*Sakhi Phagun ki nisi aye, pritam pardeshvan men chhaee hamen  
bisaree;  
Chaham disi let basant jhakora phool khil gaya kulsat more rat nahin  
aayee;  
Vividh bhanti kar phul phulai sab mein ab navras bhari aye;  
Bin piya ab kaise raht jaye dukh dush ab saha nahin jayee.*

(Oh friend, the long night of Phagun has come but my darling husband still dwells in an alien land and has forgotten me. The spring is shining all-around and gives delight to every heart, but I could not sleep throughout the night. Different kinds of flowers

springing around have filled in a new charm in the environment. But, how can I live in the separation of my husband. The pangs and pains of separation are becoming unbearable and going beyond my endurance).

Kajan Geet speaks of the separation pang felt by a bride during the rainy season. The mental stress and pain has been enlivened through this folk song :

*Are rama sawan beetal jaye sajan ghar nahin aeelian re*  
*Rimjhim rimjhim badra barse, nor birhin kai jiyara tarsai mora*  
*Are rama Kavane jatan dharin dhir sajan ghar nahin aeelian re*  
*Are rama sawan beetal jaye sajan ghar nahin aeelian re*  
*Badar garjai bijali chamki, pawan chale purwaiya rama*  
*Are rama aayil savan kai bahar sajan ghar nahin aeelian re.*

(Oh Almighty Father, the month of Sawan is fast ending but my beloved husband has not returned so far. It is raining in enchanting drizzles and the heart of mine (separated) is longing for love and care. Oh God, how can I keep patience, when my husband has not come back to home. The clouds thunder, roar and lightning shines and strikes and thus the pleasure of sawan is waning away but my darling husband has not come back).

### Dances and Festivals

The very interesting feature of the social and cultural life of Uttar Pradesh is that in spite of the apparent differences the situation is similar to the sacred Ganga which embraces hundreds of streams and rivulets. After the exit of the British regime the folklore of Uttar Pradesh witnessed a revival and rejuvenation. The hill folklore is different from the plains folklore. Even different clans of people have different folk songs and folk dances. Thali, Jadda, Jhenta and Thora are the famous folk dances of Garhwal. In the plains tract Kehrva, Chhapeli and Karma are well-known folk dances. Now even Bhangra has made inroads into the dances of Uttar Pradesh and in its sophisticated and urban form it is mostly performed in marriage ceremonies. Ram Leela and Krishan Leela are two of the richest heritages of this part of the country which have spread in the entire northern India. Probably because of their inherited instinct for struggle the people of Uttar Pradesh have an intense love and liking for fairs, festivals and ceremonies. Even poverty cannot stand in their way and they try to celebrate a festival everyday. Whereas the fairs and festivals give them

physical pleasure the fasting occasions give them spiritual delight. It is known that the number of festivities and fasts equals that to the number of days in a year. Shravani or Rakhsha bandhan, Dushehra, Dewali and Holi are, however, the most significant and auspicious occasions for the people of this State. Traditionally, Shravani is associated with Brahmans, Dushehra with Rajputs, Dewali with the business community and Holi with the lowest rung of the traditional society, but now all these festivals are celebrated alike by all communities. For example, traditionally the Rajputs have been worshipping their arms and armaments on Dushehra day but now even priests, teachers, craftsmen worship instruments like scales, pen, knife, razors, plough, etc. On the eve of Dushehra Ram Leela is celebrated enthusiastically throughout not only Uttar Pradesh but the entire northern India.

Dewali is a festival for cleanliness which is deemed next only to godliness. The illuminations at a grand-scale overshadow everything else. This festival is also traditionally an occasion for buying utensils. The festival which starts two days before amavas culminates on Bhaiya Dooj when sisters and brothers revive their sacred relationship. Narkasur's death anniversary is also celebrated on Chaudas in many parts of the State.

Holi of Uttar Pradesh, especially of its eastern part, has no parallel in India. The zeal, enthusiasm and vigour with which holi is celebrated many times cross the limits of decency. The youth of the State start preparations right from *Shivratri*. In fact, the merry making by the youth and especially the rural folk starts with Maghi and culminates in Holi. A folk song concerning Holi prevalent in eastern Uttar Pradesh signifies the occasion as such :

*'Kahe bhan kare ri gori, hori ke Tiyyohar bawari,  
Khanke kangna angana angana, uth kar le sigar bawari,  
Baurai phagunia dharti tan man geeli kankan geeli,  
Disha dulhan ban chamki, koyliya phir phagav gaye,  
Bijuria nache, Gujarla nache bal khae,  
Kahe bhan kare ri gori, hori ke tiyyohar bawari.'*

(A belle who is not taking part in Holi celebrations is being inspired and encouraged to take part in Holi celebrations by her friend. She says : "Why are you feeling pridesome on the eve of Holi, oh maddened friend. The Kangan (bangle) is resounding in every courtyard because of dancing muses. Awake and give a facelift and make up your body. The entire landscape is gone wet inch by inch and looks to be gone mad in Holi. The horizon is shining like lightning and the Koyal is also singing phagav geet. The maids looking

as gujarias are dancing with many flexibilities. You should also get up and participate enthusiastically in this celebration.”)

Besides, Ram Navami, Makar Sakranti, Haryali Teej, Vatsavriti, Krishna Janamashtmi, Kartiki Purnima, Mahashivratri, Vasant Panchami, etc., are the other important celebrations of Uttar Pradesh.

## CHAPTER 8

### *Travel and Transport*

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Uttar Pradesh, besides being an arena of political upheavals, has also been a stronghold of Hindu religion, culture and Indian civilization. Similarly "Gautam Buddha, whose gospel, marked the greatest revolution in the religious life in Asia in the sixth century B.C. and whose religion even after the lapse of two thousand and five hundred years is still professed by one-third of the world's total population, has left his abiding foot prints on the land of Uttar Pradesh."<sup>1</sup> One of the earlier homes of the Aryans, Uttar Pradesh has been the most sacrosanct of regions of India. Muslims and Mughals also devoted maximum attention to this part, their 'Hindustan' or 'heartland of India'. Resultantly, this tract of India has numerous hallowed associations for Hindus, Buddhists and Mohammedans. Many of the places in its northern part and Uttarakhand in particular are renowned for their salubrious climate as well as attractive panorama. Myth, legend and history seem to have a confluence on this tract. No wonder one finds this land of Ganga-Yamuna and Rama-Krishna replete with temples, mosques, Buddhist sites, historic forts, tombs-monuments, shrines and hills

1 Chatterji, Nand Lal, *op. cit.*, p. 9;

resorts which always attract native as well as foreign tourists in large numbers.

### Temples and Shrines

Legends abound with the redemption of this land by Lord Shiva, Lord Vishnu and Mother Durga in the mythical past. The earthly lives of Rama and Krishna and many places associated with their miraculous achievements are still a source of divine inspiration for countless Hindus from all parts of the world. The two mighty and sacred streams have not only sanctified this soil but also mirrored in their holy bosoms many places of worship. These places have been the pilgrimage centres for many ages. Thus Uttar Pradesh is the *par excellence* abode of temples and shrines in India. Many places in India are sacred but all the places are not sacred. Why all the places are not sacred? For this fact, many reasons have been suggested in the *Mahabharata*. One such reason as advanced in one ancient Hindu scripture is : "Just as certain limbs of the body are purer than others, so are certain places on earth more sacred — some on account of their situation, others because of their sparkling waters, and others because of the association or habitation of saintly people."<sup>2</sup> Sacred places are also not uniformly distributed over the entire length and breadth of our country. Some tracts have numerous such spots while others totally lack the same. The only plausible reason for this uneven distribution of sacred places is : "In the process of the spread of Hinduism, partly through actual spatial expansion and partly through absorption of non Hindu tribal populations, those areas which came to be sanctified early have, therefore, a large number of sacred places associated with the sacred streams, the coast, or the hill tops."<sup>3</sup> Now, the question rises as to why important Hindu places of pilgrimage have their hill top, confluence, river source, coastal or river bank location. It is found that bathing is extremely important for ritual purification. But this fact does not explain the bathing at the sources of the river or at the end of the tapering Deccan peninsula. Probably it is because of the symbolic meaning that different physical features have in our religion. "The Ganga, for example, is not merely any river, but acquires its sanctity because it is supposed to issue forth from the very locks of Shiva's hair. To reach the origin of the Ganga, is to reach the abode of Siva. The

2. *The Mahabharata, Anusandhan Parvan*, Chapter 108, Verses 16-18, as translated in J. H. Dave, *Immortal India*, I. xiv.

3. Bhardwaj, S.M., *Hindu Places of Pilgrimage in India*, Delhi, 1973, p. 85,

abode of the Siva is Himalaya, more particularly Mount Kailas. The quality of sanctity of the Ganga and of the Himalaya seems to have been transferred in part to other rivers and other mountains respectively. Every river can be a local Ganga. The transferring of sanctity is a quite frequent phenomenon in India."<sup>4</sup> Dr. S.M. Bhardwaj further states that ritual bathing is not merely a physical purification but symbolic purification of the soul. He quotes: "The Sipra river at the time of the *Simhastha* fair in 1968 was a foul smelling stream covered with thick scum over which the birds could walk ! Yet thousands of devoted individuals were bathing, unmindful of the physical state of the river. Obviously hygiene and ritual purification of bathing are two widely different concepts."<sup>5</sup>

*Allahabad.* In accordance with the mention of *Pryagraj* on the sacred confluence of Ganga, Yamuna and the invisible Saraswati in the ancient Hindu scriptures, the present site of Allahabad is still called as *Teerathraj*, i.e., king of shrines. The place dates back to antiquity, a period remoter than historical records. The place has ever assumed a greater significance in legend, epic and history. "As the place where Brahma performed the horse sacrifice in token of his universal overlordship, and as one which was blessed by Rama and Sita, Allahabad is immortalized with the impress of hoary antiquity."<sup>6</sup> The annual bathing festival takes place here every *Magh* (January) while the Kumb Mela is repeated every twelve years, the last one was celebrated in January, 1977. Numerous devotees flock to the Sangam (confluence) on this sacred occasion to have a ceremonial dip. The old site of *Pryagraj* which is said to have once been the abode of many religious temples, currently contains practically no temple with the sole exception of Patalpuri temple now located inside the fort was got built by the greatest of the Mughals, Jalal-ul-din Mohammad Akbar. This temple is regarded as the oldest temple of Uttar Pradesh. The Chinese traveller, Hsien Tsang, visited this temple in the seventh century A.D. which is known for its peculiar shape and curious oblong hall. *Akshyavata*, another religious site, is now merely an old stump. The hermitage of sage Bharadwaj near the confluence is another place of attraction for pilgrims.

Besides being a religious shrine, Allahabad is also a seat of the Uttar Pradesh High Court and a University. Allahabad High

4. Bharati, Agehananda, "Pilgrimage in the Indian Tradition" *History of Religions*, Vol. 3, no.1 (1963), Seattle, p. 165.

5. Bhardwaj, S.M., *op. cit.*, p. 88.

6. Chatterji, Nand Lal, *op. cit.*, p. 21,

Court shot into prominence overnight when one of its judges, Mr. Justice Jagmohan Sinha, unseated the former Prime Minister Mrs. Indira Gandhi on June 12, 1976 in an election appeal moved by her opponent Mr. Raj Narain, who, now after defeating her in the recent polls, holds the Health and Family Welfare portfolio in the Union Cabinet. The University of Allahabad, on the other hand, has produced a great many luminaries in all walks of life. Sir Ganganath Jha, Amar Nath Jha, Sir Shafaat Ahmed Khan, Ram Prasad Tirpathi, Dr. Beni Prasad, Dr. Meghnad Saha, Sir K.S. Krishnan, Dr. Tara Chand and Dr. A.C. Bannerjee were those luminating journalists, scientists, savants and litterateurs produced by this temple of learning, but today the "University is just a humdrum modest university which has much to be modest about". Surya Kant Tirpathi 'Nirala', Mahadevi Verma, the noted Hindi poets and Prof. Raghupati Sahay 'Firaq' Gorakhpuri have been closely associated with this town. Rajrishi Purshotam Dass Tondon, a great freedom fighter and a staunch protagonist of Hindi made this town the active arena of his multifaceted activities. The headquarters of the Hindi Sahitya Sammelan are also located in this town. The city got a pride of place because of the hectic activities of the freedom fighters like Pandit Moti Lal Nehru, his illustrious son, Pandit Jawahar Lal Nehru, Mrs. Vijay Laxmi Pandit and Lal Bahadur Shastri. Anand Bhawan, a palatial edifice got built by Pandit Moti Lal Nehru, has been an active theatre of political activities in the early twentieth century. Many a revolutionary and socialistic movements initiated from Allahabad. Now the town of Allahabad is a teerathraj from every angle. The city cannot boast of industrialization but in the recent past many small scale and medium sized factories have come up here. Naini has, in fact, become the industrial suburb of Allahabad. Allahabad guava, the richest vitamin C food (*amrood*) and mangoes are known for their deliciousness over the entire length and breadth of our country.

*Ayodhya* : Being the birthplace of Lord Rama, Ayodhya is another sacred place for Hindus. Ayodhya was also the capital of the ancient kingdom of Kosal. It finds mention in *Ramayana*, *Mahabharata*, Panani's *Ashtadhyayi* as also in Buddhist and Jain literature. It has also been gathered that this town was got settled by the great sage, Manu. Maharaj Prithu is also said to have ruled this city. Maharaja Harish Chandra, Deilip and Dashratha were also associated with Ayodhya. The excavations revealing the inscriptions of Pushyadant Shung have enhanced the archaeological importance of Ayodhya. The town remained not only under the halo of religion and spiritualism but also witnessed many political

ups and downs for centuries. Fa Hein and Huen Tsang also visited Ayodhya.

There were many temples littered on the bosom of Ayodhya but now many are in ruins. The temple of Janamsthan marked the place of Lord Rama's birth but was later on converted into a mosque by Akbar. The last great Mughal, Aurangzeb, demolished two very important shrines of Ayodhya, namely, Swargdwar Mandir, a place of Rama's cremation and Treta Ka Thakur where Rama had performed a great sacrifice. At present, one finds many temples dedicated to Rama, Sita, Hanumanji and Lakshmana. Apart from Ramkot a sacred temple, Hanumangarhi is a huge four sided structure resembling a fort. Kanak Bhawan is an impressive temple made up of stone and popularly known as Rajkot. It is said that this edifice was got constructed by Vikramaditya. One of the edicts of Kanak Bhawan visitors read is that in Dwapar yug Maharaj Kush got it founded whereas Maharaj Rishabh effected many additions, Lord Krishna visited the edifice, Maharaja Vikramaditya got it rebuilt and Samudragupta got it restructured.

Ayodhya, the Avadh puri of great Hindi bard Tulsidas, was ruled over by Kush, Rama's son, after the latter's death. It is also found that in ancient time Ayodhya had a great imprint on Hindu minds and wherever Hindus scattered they settled towns in the name of Ayodhya. The old capital of Thailand which was named as Ayodhya testifies to the fact. But now what an irony of history that this great city of Hindus is being beaten and defaced by the currents of time.

*Kedarnath*: The town of Kedarnath is located in a cup like valley ringed by mountains. Facing the Mandakini vale the Kedarnath shrine against a background of snowy but majestic hill peaks, this place is said to be one of the twelve most sacred places of Lord Shiva. "Silhouetted against the background of a grim and majestic landscape in the region of snow-clad Himalaya, the temple has an appeal which cannot be described in words. The wayworn pilgrim forgets all the fatigues of an arduous hill journey as soon as Sri Kedarnath rises before the eye in all its beauty and glory. He feels as if he has seen the fulfilment of his earthly existence and reached the gateway to immortality." The Kedarnath Temple stands at a height of about 11,758 feet (nearly 3,618 metres) above sea level and is overlooked by hoary peaked dizzy mountains. This stately and virile temple lacks decorative ornamental work. The sublimity and grandeur of the shrine is a befitting tribute to

Lord Shiva to whom this temple has been dedicated. The Pandavas are said to have first constructed this temple in honour of Sadashiva, the invisible form of Lord Shiva, en route to heaven. It is said to be the second shrine built by the Pandavas after the war of Mahabharata. The simple stone built temple lying on a ridge is at right angle to the Mahapanth peak and stands at the head of the Mandakini valley. The tower is built of grey stone with a gilded pinnacle. "The form of Shiva worshipped here is peculiar. It is not an idol or a *lingam*. A triangular form of a huge stone symbolises the God and is believed to represent the hinder part of a buffalo. Its front part is at Kathmandu in Nepal called *Pashupati-shwra* there. Its four other parts are at four other places in the Garhwal region, namely, the arm at Tunganath, the mouth at Mudranath, the belly at Madmaheshwar and the hair at Kalpeshwar. These five shrines are known as Panch-Kedareshwaras. Among these, the shrine of Kedarnath is considered the most sacred."<sup>8</sup> The courtyard of the temple contains a huge statue of Nandi (the bullock, Lord Shiva's ride) whereas on the inner walls are found the beautifully designed images of the five Pandavas, Draupadi, Kunti, Parvati, Shri Krishna and Ganpati. Behind the temple there is Mahapath (the great passage) used by Pandavas for ascending to heavens. At a distance of about 5 kms. is located the Choravadi Tal. The ashes of the Father of the Nation, Mahatma Gandhi, were immersed in this lake in 1948 and since then it also known as Gandhi Tal. This tank works as the source of Mandakini stream.

En route to Kedarnath from Rishi Kesh the pilgrims come across many other shrines which, in fact, work as halting places on this otherwise arduous and fatiguesome journey. Dev Prayag, Shrinagar, Rudraprayag, Agastyamuni temple, Guptakashi, Vasisht Gupha, Vyasghat, Kirtinagar, Triyugi, Gauri Kund etc. Rudraprayag, situated on the confluence of Alakananda and Mandakini, gives a picturesque view. Shiva Kund is a holy water reservoir at the back of Kedarnath. Because of its reddish water it is known as Rudhir Kund.

The temple of Gangotri in the near surroundings is said to have been erected on the stone on which sage Bhagirath used to worship Lord Mahadeva and praying for the descent of mother Ganga on this earth. Because of his efforts Ganga first descended at Shrikanth Parvat about 5,500 years ago and thus the temple at Gangotri has been dedicated to mother Ganga. At a later stage the Pandavas are said to have performed the great Dev Yagya at this place in atonement for the killing and death of their own kinsmen in the epic battle of

Mahabharata. Bhagirathi temple has also been built here by the eighteenth century Gorkha Garhwal Commander, Amar Singh Thapa.

As the crow flies, at a distance of about 20 kms., stands the ever snowcapped peak of Bandarpunch which forms as a watershed between Hanumanganga and Tons. Here, a temple dedicated to goddess Yamuna stands at an altitude of about 10,800 ft. (nearly 3,323 mtrs.) above sea level and is about 6 kms. below the glacial source of Yamuna. A group of hot water springs are also found here with a temperature of 194.7°F (about 90.5°C) where pilgrims boil potatoes and rice in a very captivating and highly enchanting panorama.

*Badrinath* : Aspiring to visit this shrine at least once in his lifetime, every Hindu devotee considers this shrine as the supreme place of pilgrimage in Uttarkhand. The temple situated at a height of 10,300 (nearly 3,169 mtrs.) above sea level nestles in the Alakananda vale ringed by snowy peaks. Badrinath, the paradise on earth, is situated in a cup like valley with Narayan Parvat on one side and Nara Parvat on another. The roars of the Alakananda stream create musical chores pleasing the human ear. "The Nara Parvat is called Kuber Bhandar (Treasure of Lord of Wealth) because it is popularly believed to contain diamonds and emeralds."<sup>9</sup> The Hindu scriptures advise the Hindu pilgrims to visit this shrine once at least if they desire to complete their pilgrimage. This lofty abode of Lord Vishnu alongwith Nara-Narayana shrine is one of the four holiest places (Char Dham) in India, the other three being Dwarka, Jagannathpuri and Rameshwarm. The temple has been dedicated to Lord Badrinath, i.e., Vishnu who appeared here for meditation. The original temple which was erected here about 12000 years ago was destroyed by avalanches or some fanatic Buddhists. It was the great sage Shankaracharya who rebuilt the temple under divine inspiration. The present elegant structure, standing picturesquely on the banks of Alakananda dates from the eighth century A.D. "Thanks to the heroism and tireless efforts of Shankaracharya, the place was rescued from obscurity and brought back to the fold of Hinduism. After some time the temple again fell a victim to Vandalism and it lay unknown until another great religious leader, Ramanuja, came and restored the worship of the image. The temple is said to have been entirely rebuilt in the sixteenth century A.D. by the ruler of Garhwal or Nepal."<sup>10</sup>

<sup>9</sup> *Ibid.*, pp. 13-14.

<sup>10</sup> Chatterjee, Nand Lal, *op. cit.*, p. 29.

According to traditions, the chief priest of the shrine has to be a Namboodri Brahman from Malabar and he is designated as Rawal here. Subordinate priests come from Devaprayag. Garhwalis of some specified villages provide fuel to pilgrims.

Vyas Gupha, Vasudhara, Bhimshila, Narad and Surya Kunds are other sacred and worth seeing places in the near surroundings of the temple. Vyas Gupha (Vyas Cave) is located near the confluence of Alakananda and Saraswati, known as Keshaprayag : Legend goes that the great sage Vyas composed *Mahabharata* and *Shrimad Bhagvad Geeta* here. A massive rock resembling the records of a manuscript piled one over the other lying on the outskirts of the cave is known as *Vyas Pustika*. Sage Vyas dedicated his verses to Ganesh who is said to have lived in the nearby cave known as Ganesh Gupha. The hermitage of Sage Vyas lies on the western bank of Saraswati and it was here that he taught *Bhagvad Geeta* to his son Shukracharya who recited to king Parikshit, grandson of Mahabharata's hero Arjuna. Vasudhara is a famous waterfall (about 123 mtrs.) almost perpendicular but gives a wonderful and picturesque view. A huge stone slab covering a narrow gorge of Saraswati is called as Bhimshila as it is said that Bhima placed this slab on the gorge of the river to help Pandavas to cross the stream on their way to heaven. The hot water springs of Narada kund and Surya kund are the bathing resorts for pilgrims.

En route to Badrinath from Rishi Kesh the pilgrims come across many temples which work as halting places during their breath-taking and tiresome journey. Deva Prayag, Shrinagar, Karanprayag, Nandprayag, Chamoli, Birahi, Gulabkoti, Pipalkoti, Joshimath, Govindghat and Pandukeshwar are such places. Devaprayag is known for its ancient Raghunath and Shiva temples. Shrinagar houses two important shrines of Vishnu and Kamaleshwar Mahadev. Joshimath is known for its temple of Jagadguru Shankaracharya. Govind ghat, the valley of flowers, Hemkund and waterfalls attract pilgrims and tourists for its natural beauty and glory.

Badrinath and Kedarnath are just 42 kms. away from each other as the crow flies. This entire tract of Uttar Khand is full of religious shrines and scenic charm. "The Rishis of ages gone by, according to *Padam Furana*, found Uttarkhand as the most glorious temple of nature, abounding in invaluable spiritual treasures, with its celebrated shrines of Badrinath, Kedarnath, Gangotri and Yamunotri."<sup>11</sup>

The adventurous and intrepid people can trek to the valley of flowers, where Guru Gobind Singh is said to have meditated, at a

distance of about 19 kms. from Govind Ghat. The valley of flowers is almost heavenly in its beauty, charm and elegance. Consisting almost all types of flowers right from delicate ones to flambuoyants, there are supposed to be more than a thousand varieties of wild flowers. The valley itself is a strange and extraordinary amalgam of gentle pastures, stark rocks, snow, ice, snouts and streams. Like all charming natural things these beautiful flowers also have a short life.

*Haridwar* : Haridwar, the holy place of antiquity and gateway to Badrinath, Kedarnath, Gangotri and Yamunotri, is located on the right bank of Ganga where the river leaves its gorge and enters the plain tract. Also known as Gangadwar and Tapovan its ancient names were Mayawati and Kapilasthana also. Legend goes that the ancestors of Raja Bhagirath were burnt to ashes here by the curse of sage Kapil. It was for their salvation that Bhagirath performed great austerities and brought down the Ganga from heaven. Kumbh mela is also held at Haridwar every twelfth year. This sacred place is replete with temples dedicated to Vishnu as well as Shiva.

Mayadevi temple is an impressive stone structure. Gangadwar is another place of public veneration. The legendry sacrifice of Daksh Prajapati (son of Lord Brahma and father of Sati) who performed a yagya here but did not invite Lord Shiva is associated with this place. Feeling insulted and humiliated Sati immolated herself in the yagya kund. The subsequent events moved so fast that Daksha had to sacrifice himself and thus he became immortalized in the Puranas. The temple of Daksheshwar at Kankhal is another holy memoire to Dakshas sacrifice.

Har-ki-Pauri and Sapt Sarovar are other places of veneration. The most sacred bathing ghat on Ganga at Haridwar is Har-ki-Pauri. It is said that some drops of nectar fell here from the pitcher full of nectar being carried by Jayant, the son of Lord Indra. Raja Bhartari Hari performed certain austerities here and later his brother Vikramaditya got the ghat built here. The temple of Ganga and Man Singh ki Chhatri are also situated here. The footmark of Lord Vishnu, one of the Trinity, imprinted on a stone now placed on the upper wall of the Pauri is an object of special veneration and reverence for the devotees. The holy water from the pool down below is carried by the devotees for use on religious and solemn occasions. Another legend reveals that Ganga had to split at a place (about 4.5 km from Har-ki-Pauri) Saptasarover into seven currents to please seven sages worshipping at different places.

Now in this city of fleeing pandas (priests) some seats of learning as well as social welfare have also come up. Swami Shradha Nand Maharaj, a revered Arya Samaj leader, "not a knight-errant of the Spirit, but its messenger who brings hope and faith"<sup>12</sup>, founded Gurukul Kangri University. Rama Krishna Mission has established a Seva Ashram here. For those who voluntarily seek retirement from material world find a place in Arya Banprastha Ashram situated at Jawalapur, the suburb of Haridwar. The Government of India have also brought up Bharat Heavy Electricals at Ranipur (4.5 km from Haridwar) for the production of electrical equipment like motors, turbines, generators, etc. Chandi Mandir, on the hill-top of the same name, also attracts many pilgrims; Sarvanath is an ancient but a pretty monument overlooking an old image of Lord Buddha sitting under the Bodhi tree. Shri Ayyappa temple, Bilwakeshwar Mahadev, Gita Bhawan, Bholagiri Ashram, Shrawan Nath, Pashupati Mahadev, Gauri Shankar, Neeleshwar Mahadev, Hanuman Mandir, Guru Gorakh Nath Mandir and Mansa Devi Mandir are other sacred temples of Haridwar.

*Rishikesh*: According to Puranic literature the surroundings of Rishikesh were bewitchedly attractive for Lord Shiva and it was at this place that Lord Vishnu killed the Madhukaitabh demon. It is also behind that Bharata the stepbrother of Lord Rama subjected himself to a severe penance here. Rishikesh is also a gateway to journeys to Badrinath, Gangotri, Kedarnath and Yamunotri. The headquarters of Baba Kali Kamliwala's Uttarkhand tract is located here. Rishikesh is situated in very picturesque surroundings and is located on a right bank cliff overhanging on the river Ganga. Rishikesh is about 24 kms. from Haridwar. Considered to be the abode of Narayana, Rishikesh is the holy city for Vaishnavites. The mountainous charm and natural panorama add so much to this beauty spot that it is aptly and justly regarded as the home of gods. Satya Narayan temple, Bharat temple, Triveni ghat, Geeta Bhawan are the important shrines in these surroundings very often visited by devotees and tourists. Lachhman Jhula, Baba Kamliwala Panchayati Chhatra and Shivananda Ashram are added attractions of this place.

In recent years this holy place of India has emerged as a refuge for peace seekers from different parts of the world. People with curious doubts with regard to Almighty God's existence and "the people on a try-everything-once meditation kick, find their way to the ashrams of Rishikesh".

Bharat Temple is an ancient shrine surrounded by stone walls, located in the heart of the town and attracts the largest number of pilgrims. Satyanarayan Temple is situated about eight kms. short of Rishikesh. Lachhman Jhula is a suspension bridge on a gorge of the Ganga and is about 3 kms. from Rishikesh. The bridge is used for people going up to the hills beyond Ganga. Raghunath Temple adorns the place and commemorates Lord Rama's visit to this place. The bathing ghat of Triveni is used by the pilgrims for bathing and 'pind shraddha' ceremony of their ancestors. There are several small temples here. On the left bank of the Ganga is situated the Swarg Ashram which is reached either on ferries or through Lachhman Jhula. An idol of Badrinath has been enshrined in the temple, which is surrounded by verdant forests and is always washed by cool breezes. Swami Shivanand, a religious leader and social reformer founded an Ashram also known as Divine Life situated on the right bank of the Ganga facing Swarg Ashram. The society renders free medical aid to the sick and destitutes. In the reverential atmosphere that prevails here many saints and devotees practise yoga in the Ashram. This benevolent society is avowed to render all possible help to the needy human beings who are in distress both bodily and mentally.

*Varanasi* : The Vatican of Hindus, Varanasi (corrupted form Benaras), is claimed to be the earliest spot on the earth "created about 3,225 years earlier".<sup>13</sup> Varanasi is second to none as a centre of Indian civilization and culture. This city, the most ancient cradle of civilization, is equally venerated by Hindus, Buddhists and Jains. Varanasi, the ancient Kashi, is that place where Raja Harishchander sold his wife, children and himself to uphold the supremacy and sanctity of truth. It was in the closest vicinity that Lord Buddha preached his first sermon to his five initial followers. The place has been a famous centre of grammarians and thinkers since ages. Even today in the field of Sanskrit learning no other town matches it. Two Universities and Bharat Kala Bhavan are such institutions as have continuously been serving the course of learning, astrology, art, music and religion.

Known as Lord Shiva's nagari Varanasi is full of temples and bathing ghats. Every temple and bathing ghat has its own historic significance. "There are other sacred places in India venerated for religious association, but none of them would appeal with a stronger attraction than Varanasi to the many millions of devotees who worship at its shrines. Rising on the bank of Holy Ganga, Varanasi

13 Sharma, Hari Dutt, *Uttar Pradesh* (Hindi), 1971, p. 47.

is a city of temples, it is said, there are at least 2000."<sup>14</sup> The temple of Vishwanath, the patron deity of Varanasi, is the most renowned temple of Varanasi. The original Vishwanath temple was demolished by Mohammad Ghauri. The second one built on the same site was destroyed by another orthodox and fanatic Mohammedan ruler, Aurangzeb, the last Great Mughal. The present temple owes its credit to the philanthropic genius and exalted devotion of Ahalya Bai who got this historically and architecturally interesting jewel in the eighteenth century. The two copper plates overlaid with gold that adorn the domes of this temple were gifted by the Sikh ruler Maharaja Ranjit Singh.

Structurally lively and pretty the Annapurna (goddess of plenty) temple is an attractive piece of art decorated with beautifully tinted sculptures. Only two centuries old, the temple, besides inviting connoisseurs of art and architecture, attracts a large number of devotees every year. Displaying architectural splendour the temple of Durga (Mother of the Universe) is an admirable piece of traditional building craft. "Its exquisite porch added in 1865 is remarkably beautiful and might be easily mistaken for a superb specimen of ancient temple architecture. Its sculptured pillars, curvilinear spires and ornamental dome are of graceful proportions."<sup>15</sup> The Nepalese temple on the banks of the Ganga is considered to be an interesting and stylish building. In its slanting roofs and multiple storeys the temple gives an eloquent contrast to all other temples of the city. Sankatmochan, Vinayak and Panchratra are other noteworthy temples of the city.

Apart from the temples there are fiftytwo bathing ghats on the banks of the Ganga passing through the holy city of Varanasi. The last ghat was built in honour of our first Rashtrapati (President) the late Dr. Rajendra Prasad. All the bathing ghats of Kashi tell the tales of the large heartedness of many of our kings, and every ghat is associated with an event. Among the best known bathing ghats are the Assi, Tulsi, Ahalya Bai, Dashashvmegha, Manikarnika and Harishchandra.

The residents of this nagri of Lord Shiva are known to be carefree, aristocratic and jovial. To arouse them from their carefreeness and lethargy the great Hindi Poet Bhartendu Harishchandra gave them a clarion call to rise, awake and face the odds of time. Varanasi has, otherwise, been associated with great personalities of India. Maharani Lakshmi Bai, the undisputed heroine of our first war of independence was born here. Ramananda, the master of Saint Kabir, initiated the Bhakti Movement (religious renaissance).

<sup>14</sup> Chatterjee, Nand Lal, *op. cit.*, p. 20.

<sup>15</sup> *Ibid.*, p. 21.

sance) in northern India from Kashi. Kashi has been the abode and preaching platform of Goswami Tulsi Dass, the great Hindi poet and Lord Rama's unparalleled disciple. Sant Ravi Dass hailed from Kashi and made the town his preaching platform. Our second Prime Minister the late Lal Bahadur Shastri made the town an active theatre of his political activities. Mahatma Gandhi initiated his political journey from this town. To give a modern and scientific outlook to learning and literature Pandit Madan Mohan Malviya founded the Benaras Hindu University, with his herculean efforts. Breaking the traditional barriers of cottage industries, Varanasi has now become an industrial node of Uttar Pradesh. The handicrafts, silk sarees, embroidery work and carving work on brass and bronze utensils are known almost in all corners of the globe.

*Mathura* : Being Lord Krishna's birth place Mathura has gained a peculiar sanctity in the eyes of Hindus. Since the town was once ruled by Indo-Greek Satrapas the town finds mention in Greek literature also. The town was widely known and its reputation as a centre of art, learning, music and architecture had widely travelled during the regimes of Kushans, Guptas and Huns. But to its misfortune its ancient temples and other pieces of art were pulled down and destroyed by Mehmud Ghazanavi, an iconoclast and enemy of art and learning in A.D. 1018. Keshvadas Temple which once boasted of excellence in the field of art and architecture was demolished by another enemy of Hindu art and learning, Aurangzeb, in A.D. 1669. The great mosque built by Aurangzeb marks the site of the old Keshvadas Temple. Thus, the present shrines belong either to the late Medieval or Modern period. The temples of Kedareshwar, Dwarkadhish, Madan Mohan, Kalbhairva and Kubja mandir, though modern are architecturally notable. The bathing ghats, mehrabs and marble galleries constructed with minutest care can still be seen. An area immortalised in miniature painting with deep and dark groves where Krishna and Radha sported and where all the birds and animals were joyful, also adorns this holy place.

Vrindavan, situated about 9 kms. north of Mathura on the banks of the Yamuna is an extremely holy place. According to Puranic legends, Lord Krishna displayed his Rasleelas here. The place is dotted with a number of temples of which about one thousand are regularly visited by pilgrims every year. Many of these shrines are the superb pieces of art. The most renowned temple of Govind Deva, got erected by Raja Man Singh of Amber in A.D. 1597, "is undoubtedly the finest temple in all North India,

and is justly regarded as an architectural wonder. The temple has suffered much from vandalism, and much of its superstructure has been destroyed. But even as it is, it excites the admiration of all lovers of architecture."<sup>16</sup> Many artists are of the opinion that this temple shows the admixture of Hindu and Muslim styles but in its superbness it excels the Fatehpur Sikri mosque built by Akbar at about the same time. It is presumed that before its desecration the monument must have been one of the splendid and grandest monuments of India. The best building conventions of our motherland has also been amply and beautifully exhibited in the temple of Madan Mohan, Jugal Kishore and Gopinath. Possessed strong individuality by every shrine it seems that their craftsmanship is irreproachable.

Modern temples at Vrindavan are no less remarkable than the Medieval shrines. Govind Das and Radhakrishnan, two wealthy merchants, got built the glorious temple of Ranganath in A.D. 1851 at a cost of Rs. 45 lakhs. Measuring 773 ft. (238 mtrs.) by 440 ft. (135.4 mtrs.) Ranganath temple is the biggest modern temple of India. This structure is a remarkable example of commingling of north Indian and south Indian architectural styles. Lala Babu, Radha Indrikishore, Radha Gopal and Lakshmi Narayan temples are other noteworthy shrines of Mathura which display the best and excellent examples of local art.

Goverdhan is a place about 23 kms. from Mathura. Legend goes that when annoyed Lord Indra lashed this area with a stormy rain for about one week. During this ordealsome week Lord Krishna kept on lifting the Goverdhan hill on one of his fingers and the canopy thus formed saved the gopis from the wrath of Lord Indra, the god of rain. Raja Bhagwan Dass of Amber got erected the Haridev temple here during Akbar's regime.

At a short distance from Mathura is located Sonkh, a prolific museum for archaeologists and students of ancient Indian history and culture. The archaeological excavations have revealed here 37 layers of human habitation from the Mauryans down to the Jat period. Recently at Kan Kalitila (Mathura) a water tank (9.10m × 8.10m and 3.96 metre deep) belonging to the Kushan period (1st to 3rd century A.D.) has been excavated by the Archaeological Survey of India. The tank is a tapering square in shape. Mathura is really becoming an archaeologists' paradise.

### Historic Mosques

For Muslims and Mughals Uttar Pradesh, the then heartland of

India, was the real Hindostan. Resultantly, all the Sultanate rulers and Mughal emperors tried to keep this region under their control. This track was not only an active theatre of their political activities but also a veritable focus of Islamic art and architectural style. Uttar Pradesh, the Hindostan of Sultans and Mughal emperors, became an abode of mosques. The mosque or 'Masjid' which literally means "place of prostration" constituted the essential building of Islamic faith, and so in almost every town there was a mosque. While there could be more than one mosque the largest in the town was called the "Jame Masjid" or the "Collecting Mosque".<sup>17</sup>

The mosques as found in Uttar Pradesh are of two types : the provincial mosques and imperial mosques. Imperial mosques were built at the imperial headquarters of the Mughals, i.e., Agra and Sikri. These mosques, built with the finest available material speak of grandeur, extravagance, magnificence and political power. The provincial mosques were built by the provincial Muslim rulers as Sharqi rulers of Jaunpur. With limited resources at their disposal the provincial rulers built only simple, rigid and less expansive mosques using the ordinary and locally available material.

*Jama Masjid at Fatehpur Sikri* : At a distance of about 23 kms. from Agra is located the Jama Masjid at Sikri. The mosque was built by Akbar to commemorate the birth of his heir apparent Salim later on known as Alamgir Jahangir. The largest mosque of its type in Uttar Pradesh, it is one of the finest oriental mosques. This is probably the grandest historical monument bequeathed by Akbar to posterity. It is wrongly said that this mosque is the copy of the Mecca mosque. No doubt the basic style underlying the mosque architecture is Islamic yet the Hindu artists and craftsmen employed here introduced many Indian, especially Hindu, features like pillars. The mosque cost Rs. five lakhs and it took five years for its completion. There are two entrances to the mosque but the southern entrance, popularly known as Buland Darwaza, is a superb and magnificent piece of architecture in India. This gateway was got erected in A.D. 1575-76 to commemorate Akbar's victory over Deccan. The gate is 134 ft (41.7m.) high but is at an altitude of about 176 ft. (54.15 m.) from the roadway. Known as glory of the Sikri, the gateway is about 130 ft. (about 41 m.) wide on its front. With a highly impressive and large quadrangle the mosque is architecturally the most dignified and successful building of Akbar.

*Moti Masjid, Agra* : Planned after the Jama Masjid, Delhi, the

Moti Masjid of Agra was built by Shahjahan, the prolific builder of edifices in India. It is a superb piece of Indo-Islamic art and architectural style. It is said that in its grace and grandeur the mosque so far stands unparalleled in the world. It is made up of pure white marble got from the Makrana marble mines of Rajasthan. Its sublime style and perfect proportions make it the finest mosque of India. The entrance is quite simple but after entering the courtyard of the mosque one is simply amazed at the elegance of this architectural jewel. There is no ornamental decoration and it lends a harmonious charm to the mosque. The mosque took seven years for its completion and it was completed at a cost of Rs. 3 lakh. The Persian inscription laid in black marble is the poetic tribute to the grace and elegance of building.

*Aurangzeb's Mosques :* Aurangzeb had no taste for art, music and architecture. But being an orthodox and bigot Muslim he used to say prayers. For this purpose he needed mosques but being a thrifty ruler he did not want to spend any sum for the construction of mosques. Thus, he invented a novel method of fulfilling his cherished desires. He started demolishing Hindu temples at important centres and the material thus got was used for the erection of mosques at those sites. He was a Puritan king so he produced simple mosques. The mosques at Varanasi and Mathura were got built this way. Since he had no love for artists and musicians, the efficiency and standard of craftsmen both Hindus and Muslims, fell considerably. He wanted to glorify only Islam and, therefore, paid more attention to the massive size than art and craftsmanship. This way he could not produce original mosques. His mosques are purely conventional, built with the traditional material as well as skill and art. The comparison in between his mosques and those of his predecessors clearly speaks of the decaying standards of art and architectural style.

*Provincial Mosques :* Most of the provincial mosques of Uttar Pradesh are located in Jaunpur, Lucknow, Etawah, Etah and Kannauj. The historic mosque of Jaunpur is the Atala Masjid. Its foundation was laid by Firoze Shah Tughlaq but it was completed by Ibrahim Sharqi in A.D. 1408. All other mosques erected in Jaunpur have followed the style of this mosque. In fact, like Mehmd Ghaznavi and Aurangzeb, Feroze Shah Tughlaq was no less a bigot and orthodox Muslim. He demolished the Atala Devi temple and ordered a mosque to be built at that sight. The mosque, however, speaks of the commingling of Hindu and Islamic arts. This synthesis emerged out of the employment of Hindu material (got from demolished temples) and Hindu artists. Jama Masjid, however, is the

biggest mosque of Jaunpur which copies the grace and style of the Atala Masjid. The elevated base reached through a flight of stairs has further added to the elegance and dignity of the mosque. The Lal Darwaza mosque, Khalis Mukhlis Masjid and Jhanjri Masjid are other noteworthy mosques of Jaunpur. Bibi Rai, the stumps queen consort of Mahmud Shah got built the Lal Darwaza Masjid. Though much of the Jhanjri Masjid is now in ruins, this also speak about the grace and grandeur it enjoyed earlier. It must have been a richly decorated piece of Indo-Islamic architectural style. Khalis Mukhlis Masjid is sternly simple.

During Aurangzeb's regime who had no taste for fine arts and architecture the artists and craftsmen started moving out of Delhi. By the time Aurangzeb died the centre of architectural activity had shifted to Lucknow where the pleasure loving Nawabs extended all patronage to the artisans. They helped maintain architectural traditions in an admirable way. Though with limited resources at their disposal the Lucknow Nawabs were seriously handicapped in many ways, yet they produced bold and extravagant structures. "Their mosques reflect their piety no less than an unalloyed love of art. They may not be as handsome as the Mughal mosques yet they are sufficiently graceful and dignified. The Nawabs of Avadh could claim with justice that it was they who kept the lamp of Indo-Muslim architecture burning in Hindustan despite mighty odds."<sup>18</sup> The only ineffaceable impression which a visitor gets after visiting these mosques is the inferiority in structure, design and art. Non-availability of marble, limited financial resources, degeneration of craftsmanship in northern India after Shahjahan, and the European influence hastened towards the hybridization of artistic designs and demoralisation of architectural ideas. The Asaf-ud-Daulah mosque, Husainabad Imambara and Jama Masjid are three important mosques of Lucknow. The architectural appearance of the Asaf-ud-Daulah mosque is of course striking because of angular symmetry, correct proportions, elevated basement and dignity. However, excessive ornamentation, out of shape domes and perforated arcade strike unpleasing to the eyes. Husainabad Imambara, initiated by Muhammad Ali Shah is indeed a beautiful example of local art. Interior decoration, lofty minarets and coloured arches clearly reveal that its builders could not prepare a true Indian structure in spite of the deteriorating pseudo-Italian art then prevalent in Lucknow. Jama Masjid of Lucknow, of course, has been built in a Mughal fashion. The only mosque with least hybridization in the Avadh Capital is Jama Masjid,

### Buddhist Sites

Lord Buddha was born at Lumbini (Rummindei of present time) of Kapilvastu state (now in Nepal on the outskirts of Basti district of Uttar Pradesh) but his career as preacher of a new religious order, which is still professed by about one-third of humanity, started at Sarnath, a place in the close vicinity of Varanasi one of the oldest towns on the globe. Two of his most marvellous miracles were performed at Shravasti (Sahet-Mahet on the Rapti banks) and Sankasya (Sankisa or Sanisa in Etah district) falling in Uttar Pradesh. He attained Mahaparinirvana (passing away from the mundane earth) at Kushinagar (Kasia, in Deoria district) on the sacred land of Rama and Krishna, Uttar Pradesh. Thus Uttar Pradesh is studded with many Buddhist sites most of which are now in ruins but which in ruined form even speak volumes about this religious order and its achievements.

**Sarnath :** The birth place of Buddhism, Sarnath or Sarangnath (Lord of the deer) is at a distance of about 8 kms. from Varanasi. The ancient site of Sarnath is known as Mrigdaya (Deer Park) or Rishipatana in Buddhist texts. Legend goes that Lord Buddha was re-incarnated in the form of a deer in one of his pre-births. At that time King Brahmdatta was the ruler of Varanasi who used to get one deer hunted daily for his dinner. Bodhisattva, then known as Nigrodha Mrigraja, counselled his fellow travellers to offer themselves one by one daily for the king's feasts instead of running helter skelter when the king's hunters chased them with arrows and bows. In the next hunting muse of the king, Bodhisattva implored the king not to kill the deers indiscriminately and promised to send a deer daily to the king's altar. Saved from botheration the king readily agreed to the proposition. Since then a park with fodder and water for deer at the present site of Sarnath was provided. Thereafter, a deer was sent regularly to the king. One day came to the turn of a pregnant doe who approached the master to defer her turn as she did not want her unborn child to die. Bodhisattva was touched at this instance and offered to go himself in her place. Story in Buddhist text goes that "Finding the 'Lord the golden coloured deer king of the....so full of forbearance and compassion' the king said, 'I have never seen even one among men. Therefore, I am pleased with you. Rise up, I grant safety of life to you both'. . . . 'Two of us being safe, what will the rest do, O King of Men ? . . . I grant safety to the rest also Lord.' Thus, the King having granted a gift (daya) to deer (mrigas) to live in the forest (dava), the locality was in the Buddhist period Mrigadava

or Mrigadaya. Modern Sarnath derived from Saranganath (Lord of the Deer) reminds us of this interesting legendary account."<sup>19</sup>

In another birth as Gautama Buddha it was in this Deer Park that Lord Buddha preached his first sermon to his first five disciples in a miraculous way. In this Deer Park then lived five monks who, on seeing Lord Buddha approaching towards them, decided to ignore him. "However, as the Lord approached nearer the five monks unable to keep their agreement advanced to receive him. One took his bowl and robe, another prepared a seat and third brought water for washing his feet, a foot stool and a towel. Then the monks addressed the blessed one by his name as well as with the appellation 'Friend'.<sup>20</sup> From the platform so prepared as his seat he preached his first sermon consisting of Right Views, Right Aspirations, Right Speech, Right Conduct, Right Living, Right Effort, Right Mindfulness and Right Meditation. Therefore, having turned Avartanam Chakra (The Wheel of the Law) Gautama Buddha became a Dharma Chakravartien i.e. Religious monarch in that Deer Park." Perched amongst lovely mango groves, the Deer Park still continues to preserve its austere and peaceful charm, grace and natural elegance since the day Lord Buddha first expounded his solution of the mystery of mundane life to his first five disciples.

The Deer Park must have remained a centre of pilgrimage for Buddhists but, "it was in the time of Asoka that it acquired a special importance on account of his magnificent monuments, of which a pillar engraved with an edict and also a relic tower containing a portion of the corporeal remains of the Buddha have still revived."<sup>21</sup> The subsequent ruling dynasties of the Sunghas, Andhras and Kushanas maintained the celebrity of this place. It was, however, under the Guptas that Sarnath witnessed its golden period in the field of art and sculpture. But the hordes in the persons of Mahmud Ghazanavi and Muhammad Ghauri overran and sacked the holiest of Buddhist places and by the twelfth century A.D. nearly the whole of Sarnath was buried underneath its own dirt and debris. The excavations amidst the ruins and stumps led to the valuable knowledge about this great city of the past. Even today the Dhamekh Stupa stands elegantly among the ruins of Sarnath. Ashoka's pillar and Lion Capital unearthed here are two valuable finds now preserved in the museum. Symbolising the ideals of peace, righteousness and goodwill the Lion Capital is appropriately

19 Majumdar, B., *A Guide to Sarnath*, 1937, Delhi, p. 12.

20 *Ibid.*, p. 13.

21 Chatterjee, Nand Lal, *op. cit.*, p. 12.

the National Emblem of Free India. In the Mul Gandh Kuti Vihar, constructed a few years ago, are preserved the mortal remains of Lord Buddha. The excavations have also brought to the light many monasteries and stupas around the main shrine.

"The Jains also claim an amount of sanctity for the locality, due to the presence of a temple belonging to the Digambara sect, erected in A.D. 1824, in memory of their eleventh Tirthankara, Sri Amsanatha. There also stands a temple of Sarangnath Mahadev about half a mile from the ancient remains of the Deer Park."<sup>22</sup>

*Shravasti* : Sahet-Mahet, located on the boundary of Gonda and Bahraich districts was once the prosperous city of Shravasti. This town was also once the sub-capital of the Koshal Kingdom. The city was founded by Shravasta, a ruler of the Surya Vansh (solar dynasty). Lord Buddha visited the place during the rule of King Prasenajit and delivered many discourses as also performed a miracle to convince the hectic Terthika preachers. The strange happenings of simultaneous rise of the moon and sun, alternate flow of water and fire from Lord Buddha's body and the sudden appearance of his numerous effigies were the miraculous feats accomplished by Gautam Buddha here. Lord Buddha lived here for some time and because of his close association with the city many stupas, shrines and monasteries grew up in the surroundings of the city which have often been frequented by Buddhist pilgrims for centuries. The remains of the old town can still be seen here. The town is also a holy place for the Jains.

*Sankasya* : Sankasya or Sankisa of Sanisa in district Etah is yet another place closely related to the miracles of Lord Buddha. Legend goes that after performing his greatest miracle at Shravasti Buddha who had gone to the Heaven of the thirty-three gods came down upon this earth at Sankasya. The legend further explains that Buddha came down on the earth alongwith Brahma and Sankra by way of a triple ladder. After this miracle the spot became a venerated and hallowed place for Buddhists and in no time its surroundings were adorned with shrines, monasteries and stupas. At present, unfortunately, the site is in a dilapidated condition and it is difficult to decipher the ruins correctly. The trial diggings carried on here have brought no fruitful results and it is in the interest of our archaeological wealth to start systematic excavations to establish the correct history of the place.

*Kushinagar* : Kushinagar or Kushinara, the present site of Kasia in Deoria district, is one of the most sacred places of Buddhist pilgrimage. It is that place where Lord Buddha attained his Mahaparinirvana, i.e., salvation from earthly life. It is still visited by numerous Buddhist devotees from far and wide every year. In course of time many Buddhist shrines, stupas and monasteries grew up here to commemorate the Mahaparinirvana of the Great Lord. But history contains no records about the reasons that led to the abandonment and oblivion of this sacred place. It is just possible that a natural calamity like earthquake in this otherwise seismic prone zone might have led to the decay and destruction of this town. Recent excavations have again led to no fruitful results. Thus, a systematic and continuous work of digging is required here too so that some valuable finds can be bequeathed to the domain of Indian archaeology. A stupa containing a giant statue of Lord Buddha has been located here.

### Historic Forts

Most parts of Uttar Pradesh consist of flat, level and featureless plain formed by the alluvium brought by the Ganga, Yamuna, Gomti and their tributaries. In such a land, in ancient times, rivalries existed not only among the Rajas, Jagirdars and Chieftains but also among the village chiefs. Thus, in good old days apart from the walled and fortified cities even the villages were very often turned into fortresses and the mud and mortar built castles of the chiefs provided much needed protection to village inhabitants during times of anarchy, chaos and confusion. In hilly and ravine infested areas forts were far more required for protection against aggression by neighbouring rulers and the like. Thereafter, came the foreign rulers who had naturally to build forts to safeguard their own political interests and forestal the designs of usurpers. Thus, by Medieval times the entire landscape of Uttar Pradesh was studded with forts, fortresses and castles built of mud, bricks and stones by rulers, big and small, no less than baronial chiefs and petty landlords. "The frequent wars and invasions, not to speak of Kaleidoscopic changes in the political fortunes of the local people, made the forts the rallying points of kingdoms and empires all through the ages from the ancient times down to the British conquest."<sup>23</sup>

Now, many these fortifications are in ruins. During Medieval times many fortified castles and fortresses were demolished and new

23 Chatterjee, Nand Lal, *op. cit.*, p. 41.

ones created at their sites. The broken mud bastions, huge stumps ramparts and huge mounds of ruins speak about the massive structures that once existed in various parts of the State. Garhwa Fort, about 40 kms. southwest of Allahabad, looks like a wrecked ship. The archaeological excavations at the Kaushambi, once Capital of the mighty Vatsa Kingdom, have brought to light the massive remains of a huge fort. Pratisthanpure, once a seat of a huge fortification, is in a badly dilapidated condition facing the famous fort of Allahabad on the other side of the Ganga. The Kara fort, once erected by Kannauj rulers, is now just a mound of stumps. The ruins at Hastinapur, Mathura, Kannauj, Kashi, Kaushambi, Koshal and Prayag all speak volumes about the forgotten vestiges of old fortifications. However, even now Uttar Pradesh can proudly boast of some of the very good forts of India, which have now become national monuments. Most of these forts belong to the Medieval period. These are generally solid sandstone structures. To make these forts as guarding posts walls were kept thick while ramparts and bastions were turned to be stern and formidable. The construction part was both elegant and ingenious. Strong iron rings were used to join the walls right from the base to the top so that even air could not find its way into the joints. As compared to the ancient forts and fortresses the Medieval forts were bigger, elaborate and artistic in style. Most of these fortifications adorn the river banks, strategic locations or crown the rocky eminences and earthen mounds on the flat open plains.

*Jaunpur Fort* : One of the earliest Medieval forts of Uttar Pradesh, the Jaunpur Fort, though now mostly in ruins, speaks about its glorious past and continues an abiding interest of its own for every tourist of native or foreign nationality. About 55 kms. north-west of Varanasi, located on the banks of the Gomti river, the fort once occupied a very strategic position. Firoz Shah Tughlaq a staunch Muslim Sultan of Delhi got it constructed in the mid-fourteenth century. This fort marked the eastern guard post of the then Delhi Sultanate. With an elegant and bold style, however, the fort style failed to leave any imprint on the contemporary architecture. Since its founder was an orthodox and bigot Muslim the fort was bound to be Muslim in character, yet the indigenous features had to be borrowed here and there which silently and sneakingly rendered it a subtle blend of the two styles. In the wake of Sultan Sikandar Lodhi's wrath towards the end of the fifteenth century the fort faced a destruction of the worst order. The parts which escaped the wrath of the Sultan were ruthlessly dismantled by the British after India's unsuccessful war of Independence as the stumps, ruins

and some standing portions of the fort had extended refuge and worked as a hideout for the patriotic activities of a handful of Indian freedom fighters "Even the stone walls were pulled down. With them was demolished the fine Sharqi palace in the fort—Chihil Satun, or hall of forty pillars built by Ibrahim Sharqi."<sup>24</sup> The demolition of this fort at least unearthed the nefarious activities of the orthodox ruler, Feroze Shah Tughlaq. The inner side of almost every stone was found ornamentally decorated which are familiar temple structures. It seems that the entire material for the construction of this fort was obtained from the demolition of temples then located in the vicinity of Zafarabad.

*Agra Fort* : A pearl set in the glistening and massive red sandstones, the fort at Agra is a memorable example of Akbar's style of architecture. "Facing the waters of the Yamuna, this noble stronghold, the finest of its class in Uttar Pradesh, breathes of the wars, the conquests and the imperial glory of the Great Mughals, and mirrors in stone and marble, the epic splendours of the reigns of Akbar, Jahangir, Shahjahan and Aurangzeb during whose time Agra was, for long the metropolis of a far flung empire stretching from Afghanistan to Bengal and from the Deccan to Kashmir."<sup>25</sup> This huge fortification on the right bank of the Yamuna with a circumference of about 2.5 kms. took eight years (1565-73 A.D.) and cost Rs. 35 lakh to the imperial exchequer. Akbar, the greatest of the Great Mughals could also not escape the blame of demolition of Hindu buildings. To make room for this memorable structure, he demolished and wiped out the memory of a Rajput citadel, then known as Badalgarh at this site. The walls are so massive and lofty that during Mughal times the Agra Fort was deemed to be absolutely impregnable.

*Ain-i-Akbari* reveals that Akbar got built about five hundred buildings within the four walls of this fort but his grandson, Shahjahan, got many of the buildings demolished to make room for his luxuriously designed and extravagantly built ornamented marble edifices. Many of the gracefully looking buildings are in fact the creations of Shahjahan and not Akbar. By using marble Shahjahan eclipsed many of the sandstone structures, thus adding extraordinary delicacy and grandeur. Akbar's style of architecture initiated an epic age in Mughal architecture but it was his grandson, Shahjahan, who ushered the lyric age. Moti Masjid, Khas Mahal, Sheesh Mahal,

24 *Ibid.*, p. 43.

25 *Ibid.*, pp. 44-45.

and Diwan-e-Aam are all triumphs of Shahjahan's love for architecture and art. Aurangzeb, the puritan Great Mughal, added only Sher-e-Haji to the fort.

*Allahabad Fort* : The most capacious structure raised by Akbar is the Allahabad Fort. It rivalled in design, elegance and craftsmanship even the Agra Fort in its heyday. Lying on the confluence of the Ganga and the Yamuna the fort is wedge-shaped. In those days Allahabad commanded a direct approach to Bengal, lying on the expanding eastern frontiers of the Mughal empire. Because of this strategic reason the city of Allahabad was fortified with the help of this fort. The spear of time has dealt a death like blow to the roofs of this fort. The original roofed area has disappeared and the interior of the fort has been deprived of its former grace, glory and architectural grandeur. The Ashokan pillar, with tributes to Samudra Gupta, carved on it, faces the main entrance of the fort. The fort which enjoyed a strategic location during Medieval times is now used for strategic purposes. Near the arsenal lies the Patalpui temple reminding the posterity about the relics of the ancient town of Prayag. When the fort came under British control they effected many changes in this edifice suiting to their requirements but unfortunately the changes proved detrimental to the original beauty of the fort.

*Chunar Fort* : Commanding the highway to Bengal, Chunar has always been known as the key to the east. About 34 kms. from Mirzapur is located Chunar on the bank of Ganga interwoven in history, legend and myth. Resembling to a cyclopean footstep, and crowning the summit and sides of a large and lofty sandstone ridge, Chunar has received its nomenclature from the Sanskrit words Charan Adri meaning footstep hill. Legend goes that it is the footstep of some Dwapar Yuga giant who set his foot here for rest while en route to Kanya Kumari from the snow clad Himalaya. With successive walls and lofty towers imparting solidity to the fort its location on the bank of the Ganga gives it a memorable and charming view. There is an old palace on the top of the rock whereas in the eastern corner of the fort stands a towering edifice which was used as residence by the Mughal Governors. The shrine of Saint Bhartri is the quaintest relic of this palace. Legend adds that King Bhartri Hari who foresook the throne and entered a saintly life chose this place for penance and meditation. Many parts of the Shringar Shatak and Niti Shatak, the two valuable contributions to Sanskrit literature, were composed here by Bhartri

Hari. In the close vicinity is another palatial building which was used by Varanasi rulers for royal weddings.

The sixteenth century struggles between Pathans and Mughals enhanced the strategic importance of Chunar. Babur came here in A.D. 1529. Sher Shah Suri captured it in a tactful way by way of marrying Lad Malika the widow of Taj Khan, the Governor of Ibrahim Lodhi. He added a big bath and an armoury to the fort. Humayun besieged the fort for half a year and succeeded in capturing this fort. It again was captured by Sher Shah Suri and remained in his possession until Akbar won it. Akbar added the western gate to the fort. Aurangzeb added Alamgiri Mosque to the fort.

In the year 1772 A.D. the British East India Company brought the fort under its ownership and made it an arsenal and ordnance depot. In 1781 when chased by Chet Singh, Warren Hastings fled to this fort from Varanasi. It was turned into a prison cell for state prisoners after A.D. 1815. Mostly, people who revolted against the British regime were condemned to internment here. Trimbakji Dauglia, the Chief Counsellor of the last Peshwa, Nawab Munna Jan and Badshah Begum of Avadh and Rani Jindan, the widowed queen of Maharaja Ranjit Singh were prominent internees at this fort. It has also housed a convalescent jail, a reformatory school for juvenile delinquents and a training camp for destitute women refugees from East Bengal.

*Jhansi Fort*: In the days of the British East India Company, Jhansi, commanding the highway leading from *Hindustan* to *Deccan* enjoyed a highly strategic position. The bold and towering fort of Jhansi, situated on a bald and massive granite rock overlooking the Jhansi town underneath, is echoing the poignant saga of Maharani Jhansi's martial forbearance, matchless manly valour, unyielding nature and the invincible courage exhibited by her against the superior British forces in numbers and armaments. The fort is silently and continuously bequeathing the tales of patriotism, inspiring leadership and fight for liberty of the bravest and best military leader of the rebels, the Indian Joan of Arc, Maharani Lakshmi Bai to coming generations. Thus no account of forts of Uttar Pradesh can be complete without a well deserved reference to this temple of liberty and dogged determination. Rough, square like in appearance the fort is encircled by walls. The embattled walls at the summit are reinforced at intervals by massive bastions. A small shrine built on a sloping rock in the eastern end of the fort still reminds about the daily worships of the God fearing but intrepid and self respecting leader of the masses. In the western

corner are found a garden, a Shiva temple and an old well. So long as the memory does not fail the human race, the saga of this historic fort shall continue to be sung in our motherland.

### **Hill Stations**

The loftiest mountains of the world, the Himalayas, stretch along the northern border of the state in their pristine grandeur. Looking like the Olympian mansions of gods and goddesses the Himalayas stand in their majestic glory and at places seem like touching the blue sky. These snow clothed ranges have new attractions for the modern tourist. On the lower ranges, covered with verdant forests are nestled some of the prettiest hill stations, majority of which in their present and modern outlook are the creations of the British. There are gay as well as quiet hill resorts suiting tastes of all shades of people. Some stations provide existing hill sports like hiking, trekking and mountaineering to the adventurous youth. During the turmoils, storms and skirmishes of Nepal wars British got most of the Himalayan tract now falling within Uttar Pradesh. Finding many spots with the healthiest climate, bewitching panorama, Kaleidoscopic splendour, and inspiring charm, sparkling buoyancy, liveliness and fascination of surroundings the British developed many spots into their summer resorts, some of which are unrivalled in India. These hills have provided India with the political stalwarts like the late Govind Vallabh Pant and the literary wizard, Sumitra Nandan Pant. The world famed classical dancer, Uday Shankar Bhatt, also hailed from the hills of Uttar Pradesh. Swami Vivekanand, the intellectual monk-giant of India was so much bewitched by the scenic grace of this area that he established one of his ashrams at Mayavati in Almora. One more hard and challenging fact exists in the remotest parts of the Uttar Pradesh Himalaya. Even now, in some caves, reside the apes (Van manush) who live on roots, fruits and tubers. They fight the wild animals with their tooth and nail in the real sense. This major wonder of the present day progressive world is also a great challenge.

*Nainital* : Nainital derives its name from the Tal (lake) of Naina Devi. The grand and extensive lake of its dimension with its surrounding charm is found only in Kashmir. This beautiful spot was discovered by a British gentleman, Mr. Barren, in one of his hunting muses in A.D. 1841. Thereafter, it soon grew in size and population and became the summer Capital of the State and continued as such till 1963. The lake which adorns this hill resort is

the veritable jewel that attracts countless visitors every year. On its shores lies the famous Naina Devi temple. On one end of the lake there also exist hot water sulphur springs. Because of numerous lakes found in the surroundings Nainital is aptly called the country of lakes. No other hill station in India can boast of such a large number of lakes.

Cheena Peak, 3,610 mtrs. (8,568 ft.), Laria Kanta Peak, 2,418 mtrs. (8,144 ft.), Snow View Mount, 2,270 mtrs. (7,450 ft.) and Dorothy's Seat 2,290 mtrs. (7,520 ft.) throw challenges to young hikers in the near surroundings of the town. Hanumangarhi (Hanuman's temple), Astronomical Observatory, State Vaccine Institute, Khurpa Tal, Bhowali, Bhim Tal, Naukuchia Tal, Sat Tal are some of the spots haunted by tourists and revellers. Nainital is also visited by Hindu devotees on Shivratri fair (February-March) held in the Shiva Temple and Nandasthami fair (September) celebrated in honour of Naina Devi. All the places mentioned here find references in Puranic literature.

*Mussoorie* : The Queen of Hills, Mussoorie, is situated at a height of about 1,971 mtrs. (about 6,500 ft.) above sea level and at a distance of about 22 kms. from Dehra Dun. The spot was discovered by Major Hearsey, an English Army Officer alongwith his hunting party in 1811. He bought the spot but sold the same to the British East India Company the next year. The hill station shot into prominence only after the completion of the Haridwar-Dehra Dun Railway track. Known for its gay social life and entertainments alongwith scenic beauty, Mussoorie is the most popular hill resort of northern India. In local usage the town is known as Mansuri, instead of Mussoorie, probably because of the Mansuri trees growing on the hill ranges here. This peerless jewel with the heaven kissing mountains and with the colourful expanse of Dun on the south, Mussoorie is unparalleled in its natural beauty among the hill resorts of Uttar Pradesh. Lal Tibba, Gun Hill, Benog Hill, Kempty Falls, Mossy Falls and Bhatta Falls are the places of tourist attractions in and around Mussoorie.

Mussoorie has also been a place of internment for many state as well as international prisoners. Dost Mohammed, the erstwhile Amir of Afghanistan was kept as prisoner here in A.D. 1842. In A.D. 1853 Dalip Singh, son of Maharaja Ranjit Singh, was also interned here. Another Amir of Afghanistan, Yaqub Khan, was brought as a prisoner here in 1883.

*Ranikhet* : Literally meaning 'Queen's field', it is gathered that in some old days a local queen on excursion encamped at a site and

also later on settled down near the present Ranikhet Club and thus it got its name. It is the only hill sanatorium of Uttar Pradesh with all motorable roads. During clear skies one gets the best and near perfect views of snow clothed ranges and the snow cover on Trishul and Naina Devi peaks gives a thrilling, rupturing and majestic view. The snows seem to be rising higher and higher in their unalloyed glory until they seem to be kissing the translucent sky. No hill station of Uttar Pradesh can excel Ranikhet for peace, repose and unobtrusive sylvan surroundings. Fruit orchards, bearing rich harvests of apples, pears and apricots dot the surroundings of Ranikhet. "With its salubrious climate, balmy breezes, whistling through the majestic pine trees and the encircling snow capped Himalayan peaks glistening in the Sun, Ranikhet weaves an instant spell on the visitors."<sup>26</sup> Chaubatia, Bhalu Dam, Upat, Kalika, Majkhali, Tarakhhet, etc., are the important places of tourist excursions here.

**Chakrata:** Chakrata, a seat of cantonment is one of the most invigorating and beauteous spots of India. At an altitude of 2,119 mtrs. (6,885 ft.) Chakrata is the healthiest place for children and invalids. Only few stations can beat Chakrata in neat and shady walks and outdoor excursions in hills and forests. The serene and resplendant mountainous landscape with idyllic surroundings is immaculate, restful and glorious. The descent to the waterfalls, climb to Deoban hills, the picturesque pear garden, ravine with its grim and precipitous cliffs render the entrancing views which remain ever memorable.

**Almora:** Almora, the 'unspoilt child of nature' and a curious mixture of the tumble down and well kept has a long and chequered history. Raja Balo Kalyan Chand of the Chand dynasty of Kumaon rulers founded the settlement in A.D. 1563 and shifted his capital from Champhawat. Throughout the Medieval period it remained a populous and popular centre. The Rohillas captured Almora in the eighteenth century and pillaged and plundered the place mercilessly. Later on, the rule of want, hunger, poverty and destitution in the surroundings drove out the Rohillas from this region. Thereafter, the place passed on to the Gurkha rulers of Nepal who had to surrender it to the British in Indo-Nepal wars. Simtola, Kalimath, Kasar Devi, Hira Dungri and Chitai are some of the visiting spots in and around Almora. This place is a starting spot for the trekkings leading to the Pindari glacier situated at the

base of Nanda Devi and Nanda Kot peaks. "A trek of 57.9 kms. from Kapkote will unfold the majestic grandeur of the Himalaya, the beauty of the mountain flora and fauna. The snowy peaks, the gurgling torrents and soaring waterfalls accompanied by the Shepherd's flute will rejoice a tourist."<sup>7</sup> The British imprisoned Pandit Jawahar Lal Nehru at Almora and perhaps here the smartest building is that jail with its impeccable green painted woodwork. The first Nobel Laureate of India, Gurudev Rabindranath Tagore, also stayed for some time here and produced some of his creations of literary muses.

*Dehra Dun* : Legend goes that the Mahabharata general, Drona Charya, who was also a great teacher, searched for a lonely place for his meditation and devotion to his discipline. He came to Dehra Dun, then an unknown place nestled between the Shiwaliks and the Himalaya. Hence, the whole valley of the Doon came to be known as Drona Ashram, i.e., Drona's abode. Rama and Lakshman are also said to have penanced here after killing Ravana, who otherwise was a scholarly giant of his times. The historical records, however, reveal that the Doon came to be known as Dehra Dun after Sikh Guru Ram Rai encamped (Dera Dala) here in the seventeenth century. The Dera was corrupted to Dehra and added to the Dun.

Dehra Dun has an invigorating and pleasant climate almost throughout the year. Known for its Lichi and Basmati rice throughout our country the town is visited by countless visitors en route to their journey to Mussoorie. Forest Research Institute, Oil and Natural Gas Commission (ONGC), Rashtriya Sainik Akademi, Rashtriya Military College, newly shifted (from Pune) Army Cadet College, Sericulture Centre, Raipur Springs, Guchchu Pani, Shahastra Dhara, Tap Kashwar Mahadev, Tapovan, etc., are the places very often visited by tourists in Dehra Dun, though the military organisations and other institutes of strategic importance can be visited only after obtaining permission to do so.

*Other Places* : Uttar Pradesh, the land which has been endowed with many natural gifts, snow clad hills, verdant forests, rich and varied animal life, enchanting and sacred streams, has ever since been an arena of many battles, religious waves, social revolutions, freedom struggle as also the abode of a swarming section of Indian populace, is naturally replete with numerous spots worth visits by tourists, adventurists, devotees, pilgrims, sociologists, historians,

archaeologists and anthropologists. The subject is so vast that a voluminous title can exclusively be written on this topic.

Keeping in view the rich cultural heritage, historic pride, rich fauna and flora and natural scenic panorama, the Government of Uttar Pradesh started a tourist cell under the charge of the Development Commissioner as late as in 1956. In the year 1961 the tourist cell was transferred to the Transport Department. It was only in July 1973 that a separate Directorate of Tourism was formed in the State. Many of the places which have been the scenes of many an important event or pivot of Indian civilization or hub of Indo-Islamic culture still breath in loneliness unknown to the tourist. No doubt, the Directorate of Tourism has created many facilities at some places for the tourists and has also given some publicity to its places of historic, religious and cultural interest, yet much remains to be done, rather grounds have still to be broken in this field. The State ought to emulate the bold and adventurous steps taken in this field by the neighbouring State of Haryana, which has really done wonders in the field of tourism during a short span of time. However, besides the places mentioned above, the following places deserve visits by native as well as foreign tourists.

**Agra :** Agra, the city of buildings and housing one of the wonders of the world, Taj (Rauza-e-Taj Mahal) attracts a large number of tourists every year in all seasons. Apart from the Taj, Jama Masjid, Moti Masjid, Diwan-e-Aam, Akbar's mausoleum (Sikandra), The Musamman Burj and Itmad-ud-Daulah's tomb are worth seeing edifices in and around Agra. The unfinished Radha Swami Temple and the initiated and unfinished black marble building facing Taj on the other bank of the Yamuna also become the focus of attention.

A dream and poem on marble, arrayed in eternal glory, the triumph of architectural creation and the exquisite mausoleum, Taj, the true *Venus de Milo* of India, designed after the general plan of Humayun's tomb (Delhi) appears to be "a house not made with hands" but "a fairy palace raised by some genii in an Arabian Nights tale". A graceful tribute of India to the womanhood, cost two to three crore rupees to the imperial exchequer and it took twentytwo years to twenty thousand men to complete Mumtaz Mahal (original name), the loveliest palace. Shahjahan not only immortalized his love for his queen Anjumand Banu Begum, popularly known as Mumtaz, by way of erecting this bewitching edifice but has been perpetually inspiring many poets of different world languages to write haunting poems (for and against) and would

continue to write such till this edifice adorns the bank of the Yamuna. One such verse which speaks of the naked truth and which is probably a greater literary tribute to love is Sahir Ludhianvi's poem entitled *Taj Mahal*, the closing stanza of which reminds every lover.

*Yeh Chamenzar, yeh Jamna ka Kinara, yeh mahal  
Yeh munakkash daro dewar, yeh mehrab, yeh tak  
Ik Shehnshah ne daulat ka Sahara lekar  
ham gharibon ki muhabbat ka uraya hai mazaq.*

or

*Mere Mehboob unhen bhi to Muhabbat hogi  
Jinki sannai ne bakhshi hai ise shaka-e-jamil,  
Unke pyaron ke muqabar rahe behamo namood  
Aaj tak unpe jalai na kisi ne qandil  
Mere mehboob kahin aur mila kar mujh se.*

The poet in the first stanza says, "These glassy gardens, this tank of Yamuna, these palaces, these engraved decorated doors and walls and cornices are all the signs of glory, but an emperor taking recourse to expenditure of huge wealth has inflicted an insult on the love of poor and downtrodden."

In the second couplet the poet whose beloved wants to meet her lover at Taj warns her, "Oh my darling beloved, even those people loved some ones whose art has given a haunting shape to this edifice, but the mausoleums of their beloveds remained unattended to and deserted and nobody has cared to light even a lamp there. My beloved, you should meet me somewhere else.

Mirza Ghias Beg, popularly known as Itmad-ud-Daula, Nurjahan's father, died at Kangra in A.D. 1622, while on his way to Kashmir. On the express and pressing demand of his queen consort, Nurjahan, Alamgir Jahangir agreed to erect a mausoleum built of silver but ultimately brooking the advice that such a costly edifice would tempt marauders, plunderers and thieves thus forfeiting the purpose. Hence a marble mausoleum in the memory of Itmad-ud-Daulah was completed in A.D. 1628. Since its construction remained under the strict supervision of Nurjahan the monument shows the supreme triumph of feminine influence on the Mughal architecture. Enclosed in a quadrangular walled enclosure and laid out in a garden the monument appears to be a gleaming pearl in a casket.

At a distance of about 8 kms. from Agra is situated the unfinished mausoleum of Akbar at Sikandra which even in its present form leaves a lasting effect on the visitor's mind. This five storeyed

sandstone building standing amidst the four battlemented walls is quite unlike Muslim tombs and is an extraordinary building. Some historians are of the opinion that if completed, this building would have been quite superb next only to Taj among the Indian mausoleums of its type. "Notwithstanding its incomplete design, the tomb designed in a truly Indian style, is pregnant with memories of the great statesman, Akbar, who was an Indian of Indians, who dreamed of a United India of Hindus and Musalmans. Both in its grandeur and in its incompleteness, the noble structure is an eloquent commentary on Akbar's mind and his taste for architecture."<sup>28</sup>

Many visitors visit Agra, the city of beautiful buildings, but the rush of native visitors has come to the lowest ebb since July, 1976 when the entry fee to Taj Mahal, Red Fort, Itmad-ud-Daulah tomb and Akbar's tomb has been greatly enhanced to Rs. 2 for each building. This is a great disincentive and is likely to tell upon the number of visitors and indirectly mean that millions of our poor brethren have been deprived of having a look at the architectural jewels which form the pillars of Indian culture. Arun Kumar Mishra has rightly reacted to this unjust levy in three of his following couplets:<sup>29</sup>

- (i) *Taj tere liye ik mazhre ulfat hi sahi*  
*Tujhko is vadie rangeen se aqeedat hi sahi*  
*Mere Mehboob kahin aur Milakar mujhse*  
*(Kharchoon main roz do rupaye meri himmat hi nahin).*

(Taj is a pleasure resort for you. No doubt you have reverence and veneration for this glorious surrounding. But, oh my beloved, meet me somewhere else—to spend two rupees daily is beyond my economic means).

- (ii) *Ik Shehenshah ne banwa kar hasin Taj Mahal*  
*Ham ghareebon ki muhabbat ka uraya hai mazaq*  
*(Aur lagwa ke ticket apne is muqabir par*  
*Apne is sud par hamse hi wasula hai vyaj).*

(A royal emperor has insulted the tender feelings of the poor lovers by constructing the elegant Taj Mahal. And, by getting

28 Chatterjee, Nand Lal, *op. cit.*, p. 122.

29 *Dharmyug*, Bombay, 5 December, 1976. In the first two couplets the lines outside the parenthesis are those of Sahir Ludhianvi while the comments of Mr. Mishra are written in brackets. The third couplet seems to be entirely Mr. Mishra's original contribution.

levied tickets on his tombs he has received the interest on his investments from us poor people.)

- (iii) *Jab meri ankh se tapkenge wafa ke ansoo  
Zarre Zarre ko naya Taj bana jayega  
(Yoon hi lagte rahe ticket 'gar tere tajon par'  
Hamko to yeh Taj mohtaj bana jayega).*

(When the tears would roll down from my eyes, every iota would become a Taj. If the levying of tickets continues this way on your crowns then this crown or Taj would turn me a pauper.)

*Fateh Pur Sikri*: At a distance of about 40 kms. is located Fatehpur Śikri, once a Capital of Mughal Empire during Akbar's reign. The history of this site has been traced in the records as back as A.D. 1526. "It is recorded that at Khanwah close by, a decisive battle was fought between Babur and Rana Sanga in A.D. 1527 when, according to Akbar's court historians, Abu-I-Fazl, the former changed its name to Shukri (Thanks giving) to commemorate his thanks offering to God for the hard won victory over his enemy."<sup>30</sup>

Sheikh Salim Chishti, a celebrated Muslim saint, with a spiritual eminence and extraordinary piety, made Sikri (probably, the corrupted form of Shukri) as his abode. Akbar did not get any issue for a long time after his marriage, and in the absence of an heir apparent he kept on worrying. On being told about the supernatural and endowment qualities of Sheikh Chishti, Akbar travelled barefoot from Agra to Sikri. On seeking blessings from the Sheikh, Akbar was told to shift to Sikri and he would be blessed with sons. Akbar did accordingly and was blessed with the birth of a son in A.D. 1480. The new born named Salim (later on Jahangir) after the name of Salim Chishti. Next year, Murad was born here and Akbar, finding the place quite auspicious shifted his capital to Sikri. In no time the place was swarmed with both public and private buildings. After his victory (Fateh) over Gujarat in A.D. 1572 the word Fatehpur was added to the place of Sikri. "But its glory was shortlived for about the year 1586 or, to be more accurate, at the end of the 16th century when Akbar returned to Agra from Lahore, the place was abandoned on account of its inferior water, unhealthy climate and certain political reasons. This change of capital told heavily on the grandeur of Fatehpur which suffered

<sup>30</sup> Husain, M.A., *A Guide to Fatehpur Śikri*, 1947, Delhi, p. 8.

more when Akbar's son and successor Jahangir, also found it out of the way and began to hold his court at Agra or Lahore."<sup>31</sup>

The remains and buildings which yet speak amply of the former glory of this noble city include Diwan-e-Khas, Khas Mahal, Turkish Sultan's houses, Khwabgah, Panch Mahal, Maryam ki Kothi, Jodha Bai's Palace, Hawa Mahal, Birbal's House, Hiran Minar, Abul Fazl and Faizi's houses, Jame Masjid, Buland Darwaza, Chishti's tomb, Rangmahal, Baradari of Raja Todar Mal. In all there are about fiftyfive monuments located in this city. Looking at the simplicity, indigenous material and skill used as also the glory and grandeur of the massive buildings Alduous Huxley paid rich tributes to Fatehpur Sikri. He opined that as an architectural achievements the Fatehpur Sikri monuments far excel the much talked about Taj Mahal of Agra. The monuments at Sikri which reflect an artistic romance in red sandstone truly reflex the mind as well as great life of the Greatest Mughal. "Sikri is neither a freak of an irresponsible despot, nor the petrification of his passing mood. Akbar's tolerance, organizing genius, greatness as an administrator, artistic tastes, manly vigour, religious turn of mind, sobriety, and dignified ambition are too clearly imprinted on the architectural monuments of Sikri to be mistaken."<sup>32</sup>

*Lucknow* : Lucknow (Lakhnaoo), the city of gardens, is situated on the banks of the Gomti. There is a controversy over the origin of the name Lucknow. Muslim historians are of the view that the Bijnore Sheikhas came and settled here in A.D. 1526 and got a fort (Qila) constructed for themselves under the supervision of Lakhna Pasi, an engineer of that period. Initially named as Qila Lakhna it gradually changed to Lucknow. The ancient Hindu literature, on the other hand, gives a different version. It is said that Lord Rama's stepbrother, Lakshman, popularly known as Lakhan, was born here and the town of Lakhanpur was established here to commemorate the birth of Lakhan which gradually corrupted to Lakhnaoo. This latter view seems to be more truthful as by this time probably no city has been named after the engineer though many cities and towns have been named after princes and rulers. Moreover, Lakshman is thought to be the incarnation of Sheshnag had even now people offer their offerings in Sheshnag well. One more legend goes that Narsingha Avtara, after killing the anti-God and proud King, Hiranya Kashypa, who had his capital at Hardoi with his nails (nakhs), washed his nails at this site in the Gomti

31 *Ibid.*, p. 10.

32 Chatterjee, Nand Lal, *op. cit.*, pp. 71-72.

river. The town thus emerged here came to be known as Nakhlay which gradually corrupted to Lucknow.

From the historic point of view the importance of Lucknow grew in the Muslim period and attained new heights in the field of glory and grandeur during the days of the Nawabs of Avadh. During the first war of India's independence, many attractive sites of this town were ruined. But the Nawabs of Avadh still added many edifices to this city. Imambara, Rumi Darwaza, Sadat Ali Khan's tomb, Kaisar Bagh, Baradari, Jame Masjid, Residency, Chhattar Manzil and Dilkusha still speak of the past glory of this town. The Chhattar Manzil now, after being renovated, houses the Central Drug Research Institute. Facing the Residency a War memorial in the memory of those Indian heroes who laid down their lives in India's First War of the Independence has been erected. The old Sikandar Garden now accommodates the National Botanical Garden. The Banarsi Bagh now houses the Prince of Wales Zoological Park.

Lucknow is known for its delicacy, soft Urdu expressions, music, dances, poetic symposia and scents. At one time the concubines of the town also attracted the sensual and pleasure loving aristocrats. Embroidery, Chikan work, silversmithy, glass bangles, embroidered silken clothes, cotton fabrics and toys are some of the reputed articles of Lucknow. Lucknow is the centre of Indian civilization and cultural heritage. This city is proud of producing literary luminaries like Munshi Prem Chand, Bhagwati Charan Verma and Amrit Lal Nagar.

Apart from these important places of Uttar Pradesh the tourists cannot resist the temptation of visiting other places though of lesser importance. Chitrakut at a distance of about 80 kms. from Banda has been one of the hermitages of sage Valmiki. Here, there is a series of 24 bathing ghats along the banks of Pyiswani stream. It is said that Lord Rama lived in the Karankuti near Ramghat for some time. About 24 kms. away from Meerut is located Garh Mukteshwar on the right bank of the Ganga. In the ancient period it was a part of Hastinapur. There is a Mukteswar Shiv temple here in whose close vicinity is located the ancient Shivalinga-jharkhandeshwar. On every Kartik Purnima (November) a festival is held here. Hastinapur is about 35 kms. from Meerut. Here, too, a fair is held every year on Kartika Purnima. Once a capital of the Pandavas the place is sacred for Jains, too. It is here that King Shreyans made the Tirathkar Rishal Dev to drink Ikshu ras. Namisharanya Misrikh is about 21 kms. from Sitapur. The great sage Dadhichi offered his skeleton bones to gods for the destruction of demons. A great tank located here is known as

Dadhichi Tal. The Puranic literature refers this place to Lord Vishnu's Sudarshana Chakra and that is why this place is also known as Chakra Tirtha. It is said that in ancient time eighty-eight thousand sages and seers gathered here for a religious seminar. Kanpur, the cottonpolis, is also known for Brajbhasha and Kannauji dialects. Kanpur has been an industrial town since very long. Now the city has a university, many other places of learning, gardens and buildings. Gorakhpur, the seat of Geeta Press, has rendered a yeoman service in producing healthy religious literature at cheap rates. Hanuman Prasad Poddar, a great scholarly figure, ran the Geeta Press at a no-profit-no-loss basis and extended to the Indian populace religious literature of such a high order, the parallel of which is yet to be seen in modern times. The town is also known for its University, aluminium, plastic and fertilizer industries. The Arogya Mandir, an institute of nature-cure, is also situated in this town.

### **Transport**

Easy accessibility of a region by way of means of transport and communications determines the stage of economic development of an area. Not to speak of only economic development but social advancement and political conditions of a region are also reflected in the network of roadways, railways and airways. The development of means of transport, on the other hand, itself depends upon an amalgam of many natural, social and economic features. Character of landscape, however, is the most vital factor in this regard. "Every human occupation is based on natural terrain. Physical configuration, effectively establishing route patterns and indirectly influencing the economy, has naturally a great bearing on the nature and characteristics of transportation."<sup>33</sup> Roads and railways are thus the important means of transport in Uttar Pradesh, though their net thins out in the Tarai and the Uttar Khand tracts.

*Roadways* : The State on the whole, because of level tract, is well served with a good network of roads. The western part of the region is, however, not adequately served as compared to the eastern part. Similarly, the marshy nature of the Tarai area and the hilly terrain of the Uttarkhand tract coupled with a slower pace of economic development are responsible for the thin net of roadways. The southern region where the badlands of the peninsular plateau jet in the region are also poorly connected by way of roads as num-

<sup>33</sup> Samiles, A.E., *The Geography of Towns*, London, 1958, p. 55.

crous ravines require lot of capital for providing bridges, etc. In the year 1975-76 the State had a network of about 21,000 kms. of metalled roads. The density of roads comes to about 32 kms. per 100 sq. kms. as against an average all-India figure of merely 20 kms.

To provide comfortable transport services at comparatively cheaper rates the nationalized Uttar Pradesh State Roadways was started in May, 1947. Finding the adventure a success, on June 1, 1972 the Uttar Pradesh State Road Transport Corporation was formed. At the end of the financial year of 1972 the Corporation had 4,253 lorries, 410 trucks and 95 taxis. The buses plied on 1,123 routes. At the beginning of the financial year of 1974 the fleet strength had increased to 4,753 buses which plied on 1,208 routes. At present, the Corporation buses cover a distance of about 7.14 lakh kms. daily and serve 8.37 lakh passengers everyday. There are about 200 bus stops furnished with amenities in the State. Agra, Allahabad, Bareilly, Kanpur, Lucknow and Varanasi are served with express services at relatively cheaper rates. On 54 routes night services are being plied. At present, the Corporation has offered employment to about 38,000 people. In accordance with the Nagpur Conference held in 1943, steps are being taken in the direction to achieve the aims set out in the conferences although the same would be accomplished after the stipulated time.

*Railways* : At present, there are about 8,626-km. long rail tracks in the State consisting both of broad as well as metre gauge systems. The State is served by Northern, North-Eastern, Central and Western Railways. About 66 per cent of the rail services are rendered by Northern Railways alone. The shares of other railway zones is 26 per cent, 6 per cent and 2 per cent respectively. The broad gauge constitutes more than 60 per cent (5,366 kms.) of the total length of rail tracks. About 2.01 mile long narrow gauge rail track is also located in the State.

A glance over the railways map reveals that the terrain leaves a vital impact on the rail track distribution. The Ganga plain with smooth gradient constitutes most of the rail track of the State. The rugged mountainous character and marshy terrain leaves the tracts of Uttarkhand as well as Tarai tracks almost untouched by railways. "The density of railways in U.P. works out to 297-km. per 10,000 km<sup>2</sup> of area in view of which the central east-west lying block of the region as of the state as a whole is one of the best developed regions of India in rail transport; in this part the density exceeds 300 kms. everywhere."<sup>34</sup> The Lucknow region with an average density of

34 Singh U. and Verma R.V., *Upper Ganga Plain in India—A Regional Study*, (Ed. R.L. Singh), Varanasi, 1976, p. 175.

600 kms., has the highest density of rail tracks in the State closely followed by the Agra tract which has a density of over 500 kms. The unsuitability of terrain heavily tells upon the density in north as well as south.

Like in most parts of northern India there is intense competition between the railways and roads. However, the roads provide relatively cheaper, quicker, efficient, more frequent and highly flexible services to the movements of passengers, industrial goods, foodgrains and raw materials.

*Waterways* : In the past waterways played a vital role as a mode of transportation. But due to the appearance of roads and railways on the landscape, the waterways have been not only thrown into the background but have almost been condemned to neglect and disuse. Rivers like Ganga, Yamuna and Ghaghra are navigable. Some canals also provide navigational services. The Central Waterways and Irrigation Commission has recommended a plan to the State for the development of waterways. "The promotion of water transport in the State is not only dependent on the maintenance of rivers in a navigable condition, through training and dredging programme, but also on the expansion of the existing fleet. Out of the 1,414 vessels plying on various rivers in the State, only 37 are mechanized and as such there is much need to use power driven tugs to quicken the transport goods."<sup>35</sup> In view of the increasing demand for transportation the State should take steps to scientifically develop its waterways.

35 *Techno-Economic Survey of Uttar Pradesh*, Delhi, 1965, p. 174.

*Problems and Prospects*

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Uttar Prādes̄h is a vast land with major contrasts in physiography, economy, culture and social fabric. The land with varied contrasts is likely to have different problems and prospects in different parts of the State. The economy and social life of highlanders is quite different from that of the plainsmen. Similarly, the economic structure and social fabric of eastern Uttar Pradesh (*purab*) is different from the counterpart conditions prevailing in western Uttar Pradesh. The Yamunapar tract presents a different outlook and economic picture as compared to the monotonous Ganga plain and undulating Tarai and Bhabar tracts. This means the various geographic segments of the most populous State of India pose different problems with varying prospects depending upon their potentialities.

Western Uttar Pradesh, especially the Upper Ganga plain, is one of the best economically developed chunks of our motherland. But there is no end to economic affluence and if some of the problems confronted by this region are solved there is a further scope for economic development. In this tract also the Upper Doab is on a sound economic footing but the Avadh plain and the Tarai-Bhabar tracts await economic development. Land is the chief source of

livelihood and people eke out their living from agriculture, animal husbandry and other allied economic pursuits. But, land itself has been infested with many problems. Overgrazing and deforestation have given birth to the problem of soil erosion. The unscientific and overdosing of canal irrigation, besides creating canal feuds, has led to the problem of waterlogging popularly known as kallar, reh or usar in different parts of the State. The Yamuna, Chambal, Ken, Betwa and their effluents have rendered large areas as badland and this ravine infested area, besides giving shelter to unsocial elements like dacoits, has heavily told upon the agrarian condition of the region. The ever growing ravines due to lack of vegetal cover are further aggravating the position. "The traditional pastoralism of the Braj Plain, a critical rainfall zone, could not maintain the ecosystem partly due to over grazing and partly to the encroachment of desertic condition. Likewise, the vigorous activity in recent years in the use of the Tarai resources, if allowed to proceed uncontrolled, may accentuate the processes of flood, waterlogging and soil erosion, leading to imbalance in eco-system."<sup>1</sup> About two decades ago, the Government of India and the Governments of Punjab, Uttar Pradesh and Madhya Pradesh showed a serious concern over the problem of advancing desertic conditions and sand dunes in the States bordering Rajasthan. To check this problem the setting up of a green belt was given top priority. A research institute to devise further ways and means to check this advancing menace was established at Jodhpur. But, one finds it to his surprise that our so called sustained efforts have borne nothing but very little fruit which too has been over exaggerated in vigorous propaganda. Even now one finds the rapid onward march of sand dunes in south-western Punjab, southern Haryana and south-western Uttar Pradesh. The provision of irrigation facilities through lift irrigation system and artificial rainfall can go a long way to create a tract covered with dense verdure which can only check the advancing menace of sand. Various techniques have been developed in the advanced nations, especially the U. S. A., to turn sand infested arid deserts into blossoming orchards. Why cannot we adopt those methods, probably because of the lack of funds. But wherefrom the funds poured in to test underground nuclear tests, to pay huge amounts to battalions of ministries in different parts of India, to spend lavishly on the red carpet welcome not only to foreign dignitaries but to Tom, Dick and Harry belonging to the administrative and political hierarchy in our own country. Why do we allow thousands of unsocial elements like smugglers, hoarders

1 Singh, U., and Verma, R.V., *op. cit.*, pp. 180-181.

and profiteers to amass incalculable wealth at the cost of poor and downtrodden masses and then allow them to invest that money on unreturning assets like jewellery, palatial buildings, imported cars, high power cameras, stereos and other luxury goods? Why not stringent measures are taken against those millions of dependents of Indians living abroad getting huge sums of money through underground means and deprive the nation of huge amounts of foreign exchange? Why not, like Israel, India can have acts and bills forbidding Indian nationals from running accounts abroad, when they no longer stay there? Until and unless our bureaucrats and politicians take a solemn vow of serving motherland honestly in a true Gandhian spirit and of scrapping relations with unsocial elements we cannot get out of the vicious circle of poverty and want. In fact, there is no dearth of capital for investment in projects and plans aiming at socio-economic regeneration of our country, but there is lack of will and determination on the part of many politicians and lack of patriotic feelings and zeal among the corrupt officials. Once the hoarded wealth and unaccounted money is brought out and strict vigilance is kept on unsocial activities and taxes are properly collected India might not have to hold even the begging bowl. This land with natural resources can once again become the golden sparrow with unborrowed and indigenous investments.

To overcome the problems of ravine infestation, badland expansion, water and wind erosion the projects of Vanamahotsava should be earnestly and vigorously pursued. We should shun the idea of ceremonial celebrations of Vanamahotsava and should put into practice in the right spirit its initiator late K. M. Munshi's desire. The time has come when we are to remind our countrymen about the important and significant role played by verdure in our national life in the past. It should be made known to each and every citizen that forests covered a large acreage of India in the ancient past. The forests were considered national asset and an asset of religious significance. Our old scriptures speak of the verdure or green gold at many instances. *Atharva Veda* considers the forests to be the source of all worldly comforts. *Shrimad Bhagvadgita* considers the forests to be the fountain-head of humanity and advocates for the conservation of forests. *Agnipurana* warns the humanity not to fell the immature flower and fruit bearing trees in the larger interest of humanity itself. The *Purana*, while elucidating the benefits derived out of forests, goes still further. It exclaims that ten wells are equal to a tank, ten tanks are equal to one son and ten sons are equal to a tree. Thus the scripture accords greater significance to forest conserva-

tion than the defence of one's own sons. A national forest policy has been promulgated and is being practised in files and papers but the real results as achieved in the field are well-known to all of us. Forests once planted, properly looked after and regularly conserved besides providing flower, fruits, honey and raw materials for wood based and chemical industry also add to the economic returns. Therefore, it is recommended that in all areas affected by and prone to water and wind erosion as well as water-logging in the State quick maturing varieties of trees be planted to be quickly followed by the plantations of trees of relatively higher economic significance.

The overexploitation of ground water is also likely to create many problems. Rain water should be properly stored and harnessed in lakes, ponds and tanks. Such reservoirs of water, besides providing water for irrigation and other purposes can also become centres for fish culture, the much needed protein rich food to a nation badly suffering from protein deficiency. Unnecessary and over-tapping of ground water can prove not only detrimental but suicidal to the agrarian economy. "Under the tempo of Green Revolution and Land Hunger the practice of balanced land use cannot be ignored. To maintain eco-balance the submarginal and wastelands should be developed as pasture and woodland at the village level."<sup>2</sup>

There is no doubt that the Upper Doab has not only become agriculturally prosperous but has attained affluence whereas many areas outside the Upper Doab tract are agriculturally poorly developed. The provision of water for irrigation, rural electrification, rural link roads and other infrastructural services to the peasantry can solve the problem to a larger extent. There is lot of scope of mixed farming, interculture (the growing of leguminous plants alongwith main crops so as to increase the production of subsidiary crops and increasing the nitrogenous content of the soil to retain and enhance its fertility), introduction of high yielding crops like 'soyabeans and crop diversification in the State as a whole. The area is known for its skill of producing art goods and crafts. This skill should be properly utilised by way of financing such artists, standardising their products, especially when the demand for such goods in the western affluent nations is on the increase. This step would also lead towards a rural-urban integration.

It has been observed that in India we suffer not only from regional but sub-regional problems as well. In the United Punjab there was a feeling of Hindu and Sikh communities. Now, when Punjab has been reorganised on linguistic basis the problem of Jats

and Brahmans in Haryana, pure Sikhs and Jat Sikhs in Punjab and Old Himachalis and New Himachalis have crept up not only among the masses but also among our politicians and administrators. Uttar Pradesh also suffers from such sub-regional problems. The people of western Uttar Pradesh have built an aura of superiority around themselves and the inhabitants of eastern Uttar Pradesh (*Purbias*) are but detested. Similarly, the people of the Yamunapar tract are supposed to be a separate class from the people of the Doab region. Bundelkhand, Rohilkhand, Vindhyaçal, Avadh and Uttrakhand have become sub-regions and people of one sub-region do not have closer affinities with the people of other sub-regions. "What is needed is an integrated approach for the regional problems with well studied and problem oriented spatial and temporal priorities. Problems are hydra headed due to social disabilities and historical antecedents, while the resources at hand, at least the capital and technological resources that are needed for quicker economic development in a democratic system, are limited."<sup>3</sup> The quickly increasing population has already accentuated the economic problem of this agriculture dominated State. Unless the secondary and tertiary economic activities are also fully developed the ever pressing agrarian economy is likely to get its backbone broken in the near future. Moreover, the lower yields can be increased by way of scientific cropping patterns and methods. The education at village level has to be oriented to vocational and technical training so that better returns from primary sectors of economy can be had. All these facilities have to be developed to successfully tap the human as well as physical resources which "have yet to be developed by readjustment of land uses and channelised to produce wealth not only for consumption of the fast growing population but also to raise capital for investment for further growth."<sup>4</sup>

No doubt the unemployment problem has engulfed the entire country but it is likely to assume serious postures in the most populous and agriculture based State of India. The unemployment problem of Uttar Pradesh can be said to be 'horrible' in precise terms. When the Second Five Year Plan was launched with a hope to generate more and more opportunities for the unemployed persons their number stood at one million and when the plan came to its end the number had grown to 1.3 million. By the end of the Third Plan, the number stood at 2.1 million and today it is estimated at about 3.5 million. For this colossal problem we cannot blame ourselves, our planners, economists, administrators,

3 Singh, R.L., and Singh, K.N., *op. cit.*, p. 249.

4 *Ibid.*, p. 250.

policy framers and leaders. The real problem of the State is that it has just not been able to procure and find sufficient funds for investments as evident from the following table :

Plan Period	Per Capita Outlay in Uttar Pradesh	Per Capita Outlay in India	Per Capita Central Assistance in Uttar Pradesh	Per Capita Central Assistance for India as a whole
First	Rs. 25	Rs. 39	Rs. 14	Rs. 24
Second	Rs. 32	Rs. 51	Rs. 17	Rs. 26
Third	Rs. 72	Rs. 91	Rs. 46	Rs. 55

"And even when something has been available, there has been an absence of adequate managerial skill to absorb this investment appropriately and profitably. Unhappily in Uttar Pradesh neither the city and town municipal boards nor the District Planning Organisations have given an evidence or indication of dynamism. The district level political leadership occasionally rises to mediocrity. It is so enmeshed with the state level political goings on, that it has not given itself a chance to discover itself or to become the reservoir of managerial talent, which it should be in a healthy and functioning democracy. Political life at district level in Uttar Pradesh has just not had a chance to modernise or organise itself, or properly to climb out of the hegemonistic hold of caste politics."<sup>5</sup> To solve the problem of employment, therefore, a co-ordinated effort is required. Only industrialization can extend jobs to more and more people. No doubt, the State is poor in its mineral resources, yet, it has a comfortable base for the development of agro and forest based industries at a large scale. To achieve the desired goal the people of this most populous State must be persuaded and educated to have smaller and smaller families.

The Himalayan region of Uttar Pradesh has different problems than those of its plain tracts. It presents a picture of acute underdevelopment. Means of transportation and communications are at the lowest ebb in this region. Lack of infrastructure stands in the way of industrializing this region. The old beliefs and superstitions play no less a role in keeping this region undeveloped and underdeveloped. Prior to the Chinese aggression of 1962 no attention was paid to the development of this area. The Chinese aggression

<sup>5</sup> Singh, S.K., *op. cit.*, p. 19.

made it a strategically important area and it seems that the attention of our leaders has also been attracted by this mountainous tract. Huge deposits of limestone and gypsum can lead to the development of cement industry provided hydropower, a potential resource, is exploited to the maximum. The Tehri Garhwal district and Pithoragarh district have deposits of copper ore and the same can be exploited for its multifarious uses. It is gathered that during the Gurkha regime copper industry flourished in places like Sira, Askot, Gangolihat, etc. The region is amply endowed with scenic charm and the tourist industry, if properly developed, can bring prosperity, if not affluence, in its grab to the region. A railway line can be laid out linking Rishikesh with Karnaprayag along the Alaknanda. Similarly, Uttar Kashi and Chamoli can be brought on the railway map of India. If railway lines can be taken to amazing heights above 3000 mtrs. in Switzerland, there is no reason that many of the places lying at relatively lower altitudes should not be provided with railway facilities. Kali valley also provides a suitable environment for a railway track between Tanakpur and Dharchula. At many places ropeways can be built to save huge expenditure on the construction of bridges. Once these transportation facilities are provided the rush of pilgrims and tourists would provide sufficient revenue to the government for investments in the development plans of this area. The sufficient water-power resources available in this region can be harnessed and utilized for electric traction. "The region is endowed with vast resources of forests, scenic beauty, agriculture, industry, horticulture livestock, minerals and above all, the sturdy and painstaking people with rather a proud heritage and advanced culture."<sup>6</sup> The people need to be given inspiration and financial assistance and one day the tract is bound to be developed. The Financial and Industrial Corporations of the State can prepare a detailed inventory of the physical and human resources (which have so far been utterly neglected) of the region and then start exploitation of these resources in a phased programme to the benefit of these highlanders and the nation at large. Tourism is not only the potential resource of the Himalayan Uttar Pradesh, but it can be developed over the entire length and breadth of this vast State. Dotted with shrines, pilgrimage centres, historic places, scenic beauty and excavation spots, steps can be taken to provide hundreds of haunting tourist resorts in the State. In this connection the state endowed with rich tourist potentials should learn and emulate the steps taken by its neighbouring State which is only over a decade of age. The wonder-

ful achievements made in the field of tourism in Haryana are an example in itself. Today, Haryana is earning a lot of revenue by way of tourism and the same is being spent to develop the economy of the State. Like many European countries, our country especially the States with rich tourist resources, should sell their scenic, religious and historic charm to tourists coming from home and abroad.

Poverty, want and hunger are rampant in many villages, suburban slums as well as many old and narrow streets of the towns. The basic reasons for these evils are heavy dependence upon agriculture and ever increasing population. Unless both the tendencies are checked there is no salvation for the most populous State of India. It is often said that India is a rich country but inhabited by poor people. Our first Prime Minister, who had a deep and scientific probe in the Indian culture, civilization as well as natural resources, often said that given the full and optimum exploitation of our natural resources there is no reason that instead of a deficit nation we can become a surplus State. The inhabitants of India are not only economically poor but they exhibit poverty even in their ideas, enthusiasm, zeal, will and determination. Tiny countries, like Israel and Netherlands, are on the average more densely peopled than our country. If Israelis can grow vegetables on the roofs of their houses and many nations can make use of every inch of land for profitable pursuits, why cannot we follow the suit. The United Kingdom could tide over its food problem during the World War (when import of foodgrains was not only difficult but almost impossible) with the heavy production of potatoes, why cannot many tubers grown in different parts of India can come to our rescue. It is often said that many of the inhabitants of Uttar Pradesh, especially those hailing from the eastern parts, are lethargic, lazy and do not carry any initiative. Constant use of smoking (mostly bidis) and betel leaf chewing has created a sense of inertia in their bloods and veins. The State of Uttar Pradesh is probably more richly endowed with natural resources than the neighbouring State of Haryana, where no perennial rivers flow. Just a decade ago, the latter was an acutely deficit State, but today the entire countryside is humming with green as well as white revolution and the State is poised for industrial revolution. Punjab was also once a deficit State and the partition of this State dealt the severest blow to its economy. But, today, the State is a progressive and prosperous State of India. Therefore, it is the call of the time that the people and planners of Uttar Pradesh should rise to the occasion and emulate the steps taken by its neighbouring State of Haryana and very shortly the State shall excel in economic production. A warn-

ing footnote may be added to the effect that no doubt there are vast unexploited resources, physical as well as human, in the State but it does not mean that check on the ever growing population is not needed. The State has every and more reason to bring its growth rate to nil in the shortest possible time.

## *Bibliography*

- 
- Agrawal, A.P. (Ed.), *Hill Resorts of Uttar Pradesh*, Nest and Wings, New Delhi, 1973.
- Bharadwaj, S.M., *Hindu Places of Pilgrimage in India—A Study in Cultural Geography*, Thompson Press, Delhi, 1973.
- Bharati, Aghaenanda, *Pilgrimage in the Indian Tradition—History of Religious*, Vol. III, No. 1, Seattle, 1963.
- Chatterji, Nand Lal, *Glories of Uttar Pradesh*, Publication Bureau, Information Department, Uttar Pradesh, Lucknow, 1957.
- Dharm Veer Bharati (Editor), *Dharmyug*, Bombay, 5 Dec., 1976.
- Hussaen, Malulvi Mohammad Ashraf, *A Guide to Fatehpur Sikri*, Manager of Publication, Delhi, 1947.
- Kaushic, S.D., *The Yamuna in Mountains and Rivers of India*, Ed. (B.C. Law), National Committee for Geography, Calcutta, 1968.
- Kharakwal, S.C., *U.P. Himalaya in India—A Regional Study* (Ed. R.L. Singh) National Geographical Society of India, Varanasi, 1971.
- Mahabharata, Anusandhan Parvan*, Chapter 108, verses 16-18 as translated by J.H. Dave, *Immortal India*, I, XIV.
- Majumdar, B., *A Guide to Sarnath*, Manager of Publications, Delhi, 1937.
- Mathur, R.N., *Some Characteristic features of Water Table in Meerut District—U.P.*, National Geographical Journal of India, Varanasi, 4th December, 1961.
- Mukarji, R.K., *Changing Face of Bengal*, Calcutta, 1938.
- Munshi, K.M., *To Badrinath*, Bhartiya Vidya Bhavan, Bombay, 1953.

- Nehru, Jawahar Lal, *Discovery of India*, Meridian Publishers, London, 1960 edition.
- Nehru, Jawahar Lal, *Will and Testament*, published in leading papers on 28 May, 1964.
- Nehru Jawahar Lal, Inaugural address to the Silver Jubilee Celebrations of the Central Board of Irrigation and Power, New Delhi, 17 November, 1952.
- Pandey, S.M., *The Historical Geography and Topography of Bihar*, Moti Lal Banarsi Das, Bombay, 1963.
- Panikkar K.M., *Geographical Factors in Indian History*, Bombay, 1959.
- Rab, M.Z., *Cottage and Small Scale Industries of U.P.*, Directorate of Industries, U.P., Kanpur, 1952.
- Rao, K.L., *India's Water Wealth*, Orient Longman, New Delhi, 1975.
- Samiles, A.E., *The Geography of Towns*, London, 1958.
- Sharma, Hari Dutt, *Uttar Pradesh* (Hindi), Rajpal and Sons, Delhi, 1971.
- Singh, R.L., *Evolution of Settlements in the Middle Ganga Valley*, National Geographical Journal of India, Varanasi, 2nd December, 1955.
- Singh, R.L. & Singh, K.N., *Middle Ganga Plain in India—A Regional Study*, Op. Cit.
- Singh, S.K., *Uttar Pradesh in the New Landscape of India*, The Illustrated Weekly of India, Bombay, Annual 1973.
- Spate, O.H.K. & Learmonth, A.T.A., *India and Pakistan*, Methuen, London, 1972.
- Techno-Economic Survey Of Uttar Pradesh*, National Council of Applied Economic Research, New Delhi, 1965.
- Tewari, A.R., *Geography of Uttar Pradesh*, National Book Trust, India, New Delhi, 1971.
- U. Singh, *Middle Ganga in Mountains and Rivers of India*, Op. Cit.
- U. Singh, & Verma, R.V., *Upper Ganga Plain In India—A Regional Study*, Op. Cit.
- Uttar Pradesh, (Hindi—Statistical Abstract) Information and Public Relations Department, Lucknow, 1975.

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